## Item 10 Response to Comments for

## Tentative Waste Discharge Requirements and National Pollutant Discharge Elimination System Permit Dated March 9, 2010 City of Los Angeles Terminal Island Water Reclamation Plant

(This Table summarizes the comments received from interested parties with regard to the above-referenced Tentative Permit. Each comment presented has a corresponding Regional Board staff response and/or corresponding action taken.)

N	lo.	Issue	Comment	Agree	Disagree	Response to Comment	Action Taken
			Letter from City of Los Ange	les	da	ited April 9, 2010	
	t	Page 1 and throughout: Name of Plant Tentative Order.	Please revise the name of the Plant to: Terminal Island Water Reclamation Plant (TIWRP)  Resolution No. 94-009 states that the City "has	X	V	Regional Board staff agree to revise the name of the Terminal Island Treatment Plant (TITP) to Terminal Island Water Reclamation Plant (TIWRP).  Elimination of 30 million gallons per day (MGD) of	Changes have been made. None
	F E	Section II.A.1, pg 6, Paragraph 1: Elimination of Discharge to Los Angeles Harbor	agreed" to "gradually" phase out discharges to the harbor "at the earliest practicable date." The Resolution also notes that the City has agreed to "adopt the <i>goals</i> " of doubling reuse within six years and to achieve total reuse by 2020. The staff report for the Resolution notes that "actual additional reuse of TITP effluent will be subject to market demand." (Staff Report at p. 3.) The staff report anticipates adjustments and modifications to the program, recognizing that the City will "review the economics of increased reuse and expand reclamation whenever it becomes cost-effective to do so and whenever additional users commit" to accepting the recycled water on a long term basis." ( <i>Ibid.</i> )		^	tertiary-treated wastewater discharge to the Los Angeles Harbor by 2020 was agreed to by the City of Los Angeles and documented in Resolution No. 94-009, adopted by this Regional Board on October 31, 1994. Below are the facts associated with the discharge elimination as stated in Resolution No. 94-009:  "4. The City has agreed to the following commitments in a letter dated October 3, 1994:  a. to phase out the discharge of wastewater effluent from TITP into Los Angeles Harbor at the earliest practicable date through implementation of a water reclamation plan.  e. to adopt the goals of doubling water reuse of TITP effluent within six years after the startup of the initial reclamation phase, and achieving total reuse of the TITP effluent by 2020.  9. Total reuse of the effluent would eliminate the discharge of wastewater to Los Angeles Harbor, but brine wastes from the reverse osmosis system would continue to be discharged to the harbor. Unreclaimed tertiary treated effluent may be	necessary.

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				discharged occasionally to the harbor due to fluctuations in demand for water reuse."	
				The Regional Board in 1994 granted <b>26</b> years to the City of Los Angeles to phase out the TIWRP's discharge to the Harbor. The City of Los Angeles has 10 years to meet the deadline.	
				For clarification, page 3 of the staff report cited by the City was incomplete and inappropriate. The language refers to an additional 10 to 15 MGD beyond the 30 MGD of TITP effluent that will be subject to market demand. Below is the complete language of the staff report:	
				"The City has committed to the goal of doubling the product water delivered from TITP within 6 years after the startup of the initial reclamation product and to achieving total reuse by 2020. Actual additional reuse of TITP effluent will be subject to market for approximately 40-45 mgd of reuse, which would exceed the total amount that would be available from TITP even at the design capacity of 30 mgd. Every three years, the City would review the economics of increased reuse and expand reclamation whenever it becomes cost-effective to do so and whenever additional users commit to accept the product water on a long-term basis."	
		The Bureau requests that the final sentence of the Finding should be revised as follows to reflect the actual language of Resolution 94-009:  "Additionally, on October 31, 1994, the Regional Board issued the Resolution No. 94-009 to approve the proposal by the City to ultimately phase out the discharge of tertiary-treated wastewater effluent from the TITP into the Harbor at the earliest practicable	X	"Additionally, on October 31, 1994, the Regional	Partial changes have been made.

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3.	Tentative Order, Section II.A.2, pg 6, Paragraph 2: Elimination of Discharge to Los Angeles Harbor via Water Recycling	Letter from City of Los Ange  date and to implement by 2020 through implementation of a Water Recycling Program with the goal of achieving total reuse by 2020. eovering two separate projects.  As discussed in Attachment A, the City has embarked upon a recycled water master planning process. Therefore, it is important that the Tentative Order not pre-judge reuse amounts or eliminate alternative approaches for achieving City's goals for water reuse. For this reason, the Bureau requests that Finding 2 be revised as follows:  2. Water Recycling Program. To implement Regional Board Resolution No. 94-009, the City has been constructing the Harbor Water Recycling Project (HWRP) in phases to produce with the ultimate goal of producing 22.5 mgd recycled water for reuse in the Dominguez Gap Barrier and other applications, including irrigation, industrial, and recreational. This recycled water is produced at the TIWRPTP's	les da	the goal of doubling water reuse of TIWRP effluent within six years after the startup of the initial reclamation phase, and achieving total reuse by 2020-covering two separate projects."  This information provided by City was included in the permit as a finding. It states the current status of the HWRP. We understand that the quantity of recycled water being proposed in the different phases is a goal and may fluctuate. Therefore, there is no need to revise the information. However, Regional Board staff appreciate the City of Los Angeles' extra efforts to update the Regional Board for the future planning of the AWTF. The language has been revised as:  "The City in its April 9, 2010 Comment Letter for the tentative TIWRP Permit has committed to provide an update in 2012 to the Regional Board Executive Officer on its progress and future planning for the AWTF based upon available funding and demand for recycled water. However, the City shall submit a	
		Advanced Wastewater Treatment Facility (AWTF).  Table 5 presents the proposed quantity of recycled water to be produced for each phase.  Table 5. Proposed Recycled Water Production Capacity  Phase Recycled Water (mgd) Brine Waste (mgd)  1 5.0 1.7  1 12.0 4.0  11 22.5 7.5  The HWRP — Dominguez Gap Barrier Project (Order No. R4-2003-0134), adopted on October 2, 2003, was permitted to inject up to 5 MGD recycled water to the Dominguez Gap Barrier (Barrier) to prevent seawater intrusion. The HWRP — Nonpotable Reuse Project (Order No. R4-2003-0025), adopted on January 30, 2003, was permitted		progress report every year as specified in Section X.D.5. of the MRP."	

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		to use the recycled water for irrigation, industrial, and recreational uses.				
		The City will provide an update in 2012 to the Regional Board Executive Officer on its progress and future planning for the Advanced Water Treatment Facility based upon available funding and demand for recycled water.	X			
4.	Tentative Order, pg 6, Footnote 4: Elimination of Discharge to Los Angeles Harbor via Water Recycling	See earlier comment #2 regarding the intent of the Resolution and phase-out. This footnote is also not consistent with Discharge Prohibition III.H that acknowledges that the discharge is "generally prohibited", and should be revised as follows:  To implement Regional Board Resolution No. 94-009, the City has been constructing the HWRP in phases with the goal of producing with the ultimate goal of treating 30 mgd effluent and producing 22.5 mgd recycled water for reuse in the Barrier and other applications.		X	See "Response to Comment" No. 2.	None necessary.
		Any change also should be made in the Fact Sheet – Attachment F.				
5.	Tentative Order, Section II.A.3, pg 7, Paragraph 1: Dilution Credits and Elimination of Discharge to Los Angeles Harbor	Finding II.A.3 asserts that the current dilution credit of 61 would no longer apply in a scenario where the City ceases discharging tertiary treated water and only discharges brine waste from the Advanced Water Treatment Facility. This assertion does not reflect the results of the referenced "Mixing Zone and Dilution Credit Study." This Study simulated five TIWRP discharge scenarios to delineate the acute and chronic mixing zones as follows:  • Scenario A – TIWRP would treat 17 mgd, reuse 5 mgd, release 10.25 mgd of tertiary-treatment effluent and release 1.75 mgd of brine to the Harbor.	X		Regional Board staff agree with the City's comments. Section II.A.3. of Order has been revised as:  "Dilution Credits The quantity of tertiary-treated effluent discharged into the Harbor fluctuates and ranges between 15 and 23 mgd. The Study did not provide the sufficient information to cover the current daily maximal flow. Therefore, the The most conservative lowest dilution credit of 61, based on 30 mgd of design capacity totally recycled to produce approximately 7.8 mgd of brine waste from among a wide range of current and future discharge scenarios simulated and reported in the Study, was chosen for calculating the final effluent limitations specified in Order Nos. R4-2005-0024, R4-2008-0082, and R4-	Changes have been made.

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	<ul> <li>Scenario B – TIWRP would treat 17 mgd, reuse 12.6 mgd, and release 4.4 mgd of brine to the Harbor.</li> <li>Scenario C – TIWRP would treat 30 mgd (the facility's design capacity), reuse 22.2 mgd, and release 7.8 mgd of brine to the Harbor.</li> <li>Scenario D – TIWRP would treat 30 mgd (the facility's design capacity) and release 30 mgd of tertiary-treatment effluent to the Harbor.</li> <li>Scenario E – Current permit conditions continue, whereby TIWRP treats 17 mgd, reuses none, and releases 17 mgd of tertiary-treatment effluent to the Harbor.</li> <li>In particular, Scenario C considered the release of 7.8 mgd flow rate of brine noted), and was the basis for the dilution credit of 61. Therefore, it is incorrect to state that the current dilution credit of 61 would no longer be applicable under this scenario. Therefore, there is no need to conduct another special study based on a discharge of only brine waste (up to 7.8 mgd) because the current dilution credit is founded on this scenario. The Bureau requests that Finding II.A.3 be revised as shown below in "track changes" mode, with strikethroughs indicating suggested deletions and underlining indicating suggested additions. These revisions are intended to clarify the language in this section and remove incorrect assertions.</li> <li>3. Dilution Credits. On May 28, 2004, the Regional Board received the City's final report of the Mixing Zone and Dilution Credit Study. On September 3, 2004, the State Board partially approved the results of the Study, which is "These dilution ratios appear to be appropriate for establishing an acute mixing zone and dilution credit as defined in the SIP*s." State Board staff</li> </ul>		2010-XXXX for the purpose of protecting aquatic life, human health, and receiving water quality. The dilution credits of 61, based on 30 mgd of design capacity, will continue to apply. However, once the discharge from the TITP is phased out in 2020, there could be as much as approximately 7.5 mgd of brine waste, which may be discharged into the Harbor. However, the current dilution credits of 61 will no longer be applicable to pollutants with final effluent limitations due to the lower flow rate and higher density of pure brine waste discharge, which theoretically result in smaller dilution credits. The City should prepare to conduct another special study, based on the pure brine waste discharge, in order to receive a different dilution credit granted by the State Board in the future."	

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		suggested the use of a chronic dilution ration conservatively applied as the unmodified acute dilution ration, i.e., D <sub>chronic</sub> = D <sub>acute</sub> . This resulted in a single dilution credit, similar to the minimum initial dilution ration D <sub>minimum</sub> found in most ocean discharge permits. The quantity of tertiary-treated effluent discharged into the Harbor fluctuates and ranges between 15 and 23 mgd. The Study did not provide the sufficient information to cover the current daily maximal flow. Therefore, tThe most conservativelowest dilution credit of 61 corresponding to 7.8 mgd of brine discharge from among a wide range of current and future conservative discharge scenarios simulated and reported in the Study was chosen for calculating the final effluent limitations specified in Order Nos. R4-2005-0024, R4-2008-0082, and R4-2010-XXXX for the purpose of protecting aquatic life, human health, and receiving water quality. However, olf the tertiary-treated effluent discharges from the TITP isare phased out—in 2020, there could be as much as approximately 7.58 mgd of brine waste, which may be discharged into the Harbor. However, tThe current dilution credite of 61, which was based on this scenario, will continue to apply under that condition will no longer be applicable to pollutants with final effluent limitations due to the lower flow rate and higher density of pure brine waste discharge, which theoretically result in smaller dilution credits. The City should prepare to conduct another special study, based on the pure brine waste discharge, in order to receive a different dilution credit granted by the State Board in the future.			
		In addition, the Bureau requests a new footnote be added to reference the correct title and date of the	X	Regional Board staff agree.	A new Footnote

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		subject Dilution Study as follows. [Add New Footnote 5]: Larry Walker Associates (2004). "Terminal Island Treatment Plant Outer Los Angeles Harbor - Dilution Study Report of Findings". Prepared for City of Los Angeles Bureau of Sanitation Regulatory Affairs Division. May 14, 2004. 49 pp.			has been added.				
6.	Tentative Order, Section II.A.3, pg 7, Paragraph 1: Typo	Replace both incidences of "ration" with "ratio" in this paragraph.		Regional Board staff agree.	Changes have been made.				
7.	Tentative Order, Section II.A.4 pg 7, Paragraph 1: Typo	"minimal detection limit (MDL)" should be "method detection limit (MDL)"		Regional Board staff agree.	Change has been made.				
8.	Tentative Order, Section II.A.4, pg 7, Paragraph 1: Incorrect Values used for Calculation	Correct the values in the calculated arithmetic mean cyanide concentration in Section 1.3.4.2 from: $(0.7 + 0.5 + 10 \times 0.5)/12$ to $(0.7 + 0.5 + 142 \times 0.5)/144 = 0.5014$	X	Typos have been fixed.	Changes have been made.				
9.	Tentative Order, pg 8, Footnote 8: Grammar	The Bureau requests the sentence to read as follows: conducted a jointed NPDES site inspection	X	The typo has been made.	Change has been made.				
10.	Tentative Order, Section II.H.1, pg 13-14: Ammonia Objectives	These paragraphs in the permit and Fact Sheet refer to "proposed" ammonia objectives, which have been already been approved by the Regional Board. Please modify the language in these Paragraphs to acknowledge the objectives have been adopted and eliminate the "proposed" status of the objectives.	X	All "proposed ammonia objectives" have been modified as "adopted ammonia objectives" or "ammonia objectives."	Changes have been made.				
11.	Tentative Order, Section II.H.1.b, pg 13: Word Use	"Chrematistic" should be changed to "Characteristic" in the title of Resolution No. 2004-022.	X	Typo has been fixed.	Change has been made.				
12.	Tentative Order, Section II.M, pg 17 – 18: Technology- based effluent limitations	The permit states: "The technology-based effluent limitations consist of restrictions on Biochemical Oxygen Demand (BOD5), Total Suspended Solids (TSS), and pH. Restrictions on BOD5, TSS, and pH are discussed in the Fact Sheet."							
		BOD and TSS that are more stringent than applicable federal standards, but that are nonetheless necessary							

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		to meet numeric objectives or protect beneficial uses. The rationale for including these limitations is explained in Section IV.B. of the Fact Sheet."  The Fact Sheet states: "However, all technology-			There is a typo, which has been fixed as:	Typos have
		based effluent limitations from the previous Order No. R4-2005-0024 are based on tertiary-treated wastewater treatment standards. These effluent limitations have been carried over from the previous Order to avoid backsliding."			"However, all technology-based effluent limitations <u>are</u> from the previous Order No. R4-2005-0024 <u>are based on tertiary-treated wastewater treatment standards"</u>	been made.
		The Regional Board's proposed reasons for maintaining technology-based limits based on tertiary-treated wastewater treatment standards is misplaced. As clearly stated by the State Water Resources Control Board in a recent water quality order, "[t]ertiary treatment is not specifically required for POTWs by federal law, but may be a reasonable requirement where the treatment is necessary to achieve compliance with water quality standards." (See In the Matter of the Petitions of City of Stockton, et al., Order WQ 2009-0012 at p. 7.) The State Water Board further stated that while the regional board has discretion to include other requirements to ensure proper facility operation, "there is no legal requirement to adopt technology-based effluent limitations for tertiary treatment."		×	The Regional Board's response are not misplaced, and are supported by the precedential State Water Board Order WQO 2004-0010 (Woodland, see attached at the end of "Response to Comments"). See the next sentence following the citation quated Order WQO 2009-0012 at p.7, which reads:  "It is appropriate to include provisions that require tertiary treatment where recessary to protect water quality."  WQO 200-0012 also references WQO 2004-0010 in Footnote 9.  The technology-based numeric effluent limitations of BOD5, TSS, and pH in the tentative Order are carried-over and based on the secondary-treated wastewater treatment standards, 40CFR, Part 133.102. The TIWRP is the tertiary-treated plant; therefore, the TIWRP shall not have any problem to meet these proposed limitations, which also have been adopted by this Regional Board for all POTWs' NPDES Permits. In addition, State Board Order WQO 2004-0010 determines that the effluent must be treated to tertiary quality based on the beneficial use of REC-1 in receiving water. "REC-1" is one for beneficial uses in the Los Angeles Harbor. Therefore, the limitations of	None necessary.

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		25kg: Holli City Ci 255 Alige	.00	uu	BOD5, TSS, and pH are appropriate for the TIWRP.	
		In its decision, the State Water Board upheld the Central Valley Water Board's action to remove effluent limitations for oil and grease and turbidity. In its support of the Central Valley Water Board, the State Water Board found that oil and grease are not part of the federal technology-based requirements and removal of such limitations here was appropriate because there was no longer reasonable potential. Thus, where there is no longer reasonable potential, the Regional Board does not need to maintain previous met limits claiming that it is necessary to do so to avoid backsliding.		X	In comparison to other POTWs in this region, the turbidity limit for the TIWRP is consistent with those of POTWs, which have filtration as part of their treatment process. The limitation therefore reflects what the technology (of choice by the Discharger) is designed to achieve. The turbidity effluent limitations are consistent with the State Water Board precedential decision, State Water Board Order No. WQ 2004-0010 for the City of Woodland. The above statement has been added with Section IV.C.2.b.x. of Fact Sheet.	None necessary.
		Further, in the permit in question, the Central Valley Water Board removed the turbidity effluent limitations and alternatively added provisions to the operational section of the permit for turbidity. The State Water Board upheld this change stating that "[t]he turbidity limitations in this Permit are not water quality based effluent limitations[] [and] [t]he Central Valley Water Board properly exercised its discretion in labeling these requirements as 'Special Provisions' rather than effluent limitations." (Order No. 2009-0012 at p. 8.)		X	See "Response to Comment" above.	None necessary.
10		In light of the State Water Board's findings in WQO Order No. 2009-0012, the Bureau requests removal of the oil and grease limitation because there is no reasonable potential, and respectfully requests removal of the turbidity effluent limitations. At most, the turbidity provisions should be in the operational section of the permit.		X	Regional Board staff disagree to remove the limitations. The limits for oil and grease are based on the Basin Plan (page 3-11) narrative, "Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses."	None necessary.
13.	Tentative Order, Section II.O, pg 17 – 18: Conflicting sentences	The third sentence of this paragraph, "Some effluent limitations in this Order are less stringent that those in the previous Order" conflicts with the last sentence which reads "All effluent limitations in this Order are at least as stringent as the effluent limitations in the	Х		The last sentence has been removed.	Change has been made.

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		previous Order." Please correct.				
14.	Tentative Order, Section III.C, pg 19: Discharge prohibition	Section C should read "the monthly average effluent dry weather discharge flow rate" rather than the "maximum daily flow of influent" Since the collection system is pumped into the TIWRP facility and the pumping rate is variable, there could be times when the instantaneous peak could be above 30 MGD. The plant is designed to handle an average flow of 30 MGD and an instantaneous max of 50 MGD.			Regional Board staff agree to revise Section II.C. of the Order as:  "The maximum daily flow of influentmonthly average dry weather flow from the collection system to the headworks of the Plant shall not exceed the design capacity of 30 MGD and an instantaneous maximum of 50 MGD, respectively. This prohibition is not applicable during wet weather storm events."	Changes have been made.
15.	Tentative Order, Section III.H, pg 20: Elimination of Discharge to Los Angeles Harbor	This provision properly notes that the discharge is "generally prohibited". The Bureau recommends that this language be slightly modified as follows so as to avoid confusion regarding the nature of the general prohibition found in the Bays and Estuaries Policy and the specific requirements of this permit:  H. The discharge of treated municipal wastewater to the Harbor is generally prohibited under the Enclosed Bays and Estuaries Policy. The City has agreed to a goal of eliminating the discharge by 2020 subject to market demand and economics or and shall be eliminated at the earliest practicable date. Until the discharge is eliminated, the following requirements of Section IV apply.		X	See "Response to Comment" No. 2. Regional Board staff only agree to modify Section III.H. as"  "The discharge of treated municipal wastewater <u>but brine waste</u> to the Harbor is <del>generally prohibited by 2020 and shall be eliminated at the earliest practicable date. Until the discharge is eliminated, the following requirements of Section IV. apply."</del>	Changes have been made.
16.	Tentative Order, Sec. IV.A.1 & throughout document, pg 20: Terminology	The term "Discharge Point 001" should be changed to "Discharge Serial No. 001".		X	Regional Board staff disagree to modify, because "Discharge Serial No. XXX" has been replaced with "Discharge Point XXX" in the State-wide NPDES template.	None necessary.
17.	Tentative Order, Section IV.A.1.a, pg 20 Table 7: Chlorine Residual Limit	The limit for total chlorine residual is based on the Basin Plan narrative (page 3-9), which states that "chlorine residual shall not be present in surface water discharges at concentrations that exceed 0.1 mg/L and shall not persist in receiving waters at any concentration that causes impairment of beneficial uses". Because total chlorine residual is not listed as		X	Regional Board staff disagree. Pursuant to Section 1.4.2.1 of SIP, "Dilution credits may be limited or denied on a pollutant-by-pollutant basis, which may result is in a dilution credit for all, some, or no priority pollutants in discharge", dilution credits of 61 cannot be granted to chlorine in the effluent, because chlorine is very toxic chemical. In addition, chlorine is an	None necessary.

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		an impairment of the receiving waters (303(d)-listed), it is expected that total chlorine residual is below the Basin Plan water quality objective. As such, effluent discharged from the Plant should be allowed a dilution credit in the application of its total chlorine residual effluent limitation. Therefore, the Bureau respectfully requests that the residual chlorine maximum daily effluent limit be changed to include the dilution credit and be listed as 6.2 mg/L.			extremely toxic to aquatic life. No such a high chlorine concentration of 6.2 mg/L can be granted to the TIWRP.	
		Footnote 21 commenting upon the application of the dilution credit should also be applied to the cell for residual chlorine limit.				
18.	20, Footnote 18: Chlorine Residual	Resulting from the change to Table 7, footnote 18 should be struck and the footnotes renumbered accordingly.	2	Х	See Regional Board staff's "Response to Comments" No. 17 and No. 19.	None necessary.
19.	Tentative Order, pg 20, Footnote 20: Chlorine Residual	The language at the end of footnote 20 should be clarified and read as follow. "The exceedances—over between one to five minutes, but not over five minutes, will between one to five minutes, but not over five minutes, will not"		X	The suggested language by the City of Los Angeles has the same meaning with the language stated at the tentative permit, which has been adopted in the recently NPDES permits. Therefore, the language stated at the tentative permit stay as it is.	None necessary.
20.	Tentative Order, Section IV.A.1.a, pg 21, Table 7: MBAS	The Bureau appreciates the application of the dilution ratio in the effluent limitation for MBAS. However, we fail to see how the rationale explaining the basis for the Title 22-based limit (0.5 mg/L) supports application of the limit in a manner consistent with the Basin Plan and EPA's Water Quality Standard Regulation. According to the Fact Sheet:  "The existing permit effluent limitation of 0.5 mg/L for MBAS was developed based on the Basin Plan incorporation of Title 22, Drinking Water Standards, by reference, to protect the surface water MUN beneficial use. Given the nature of the facility which accepts domestic wastewater into the sewer system and treatment plant, and the characteristics of the wastes discharged, the discharge has reasonable potential to exceed both the numeric MBAS water quality objective			Regional Board staff agree to revise Section IV.C.2.vi. of the Fact Sheet and disagree to delete the numeric limitation of MBAS. The MBAS procedure tests for the presence of anionic surfactants (detergents) in surface waters. Surfactants disturb the water surface tension, which affects insects and can affect gills in aquatic life. The MBAS can also impart an unpleasant soapy taste to water, as well as cause scum and foaming in waters, which impact the aesthetic quality of surface waters. In addition, surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use, based on the Basin Plan.	Changes have been made.

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		Letter from City of Los Ange  (WQO) and the narrative WQO for the prohibition of floating material such as foams and scum. Therefore an effluent limitation is required." (Fact Sheet, Sec. C.2.vi).  This rationale is inconsistent with EPA's Water Quality Standards Regulation at 40 CFR Part 131, which defines the term "Criteria" as:  Elements of State water quality standards, expressed as constituent concentrations, levels, or narrative statements, representing a quality of water that supports a particular use. When criteria are met, water quality will generally protect the designated use." (40 CFR Part 131.3(b)) (emphasis added).  This approach is reiterated in EPA's definition of Water Quality Standards, which "consist of a designated use or usesand water quality criteria for such waters based upon such uses." (40 CFR Part 131.3(i)). More importantly, the Region 4 Basin Plan embraces this bifurcated approach to addressing water quality. Citing the Water Code, it provides that water quality objectives are "the allowable limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water" Hence, the Basin Plan objective for MBAS is specifically provided for "waters designated MUN."	Ď		ted April 9, 2010	
		In addition, the Bureau fails to see how citing the affects that MBAS may have on water surface tension and aquatic life has anything to do with application of the Title 22 limit. The permit provides no information supporting use of the Title 22 limit for MBAS as necessary for the protection of aquatic life. See pgs F-29 and Footnote 8 on pg E-15.				

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		The Bureau requests that references to the protection of aquatic life be removed from the Tentative Order absent information supporting the Title 22 limit for the protection of aquatic life.		
21.	Tentative Order, Section IV.A.1.a, pg 21, Table 7: Radioactivity	The tentative permit includes effluent limitations for Gross alpha, Gross beta, Radium 226 & 228, Tritium, Strontium, and Uranium based on California drinking water maximum contaminant levels (MCLs) without applying the 61:1 dilution factor.	>	X Regional Board staff disagree. Pursuant to Section 1.4.2.1 of SIP, "Dilution credits may be limited or denied on a pollutant-by-pollutant basis, which may result is in a dilution credit for all, some, or no priority pollutants in discharge", dilution credits of 61 cannot be granted to radioactivity, because the City of Los Angeles did not conduct the study on radioactivity.
		The Fact Sheet states: "Radioactive substances are generally present in natural waters in extremely low concentrations. Mining or industrial activities increase the amount of radioactive substances in waters to levels that are harmful to aquatic life, wildlife, or humans. Regional Board staff used Best Professional Judgments to establish radioactivity limits for the effluent using Maximum Contaminant Levels (MCLs) for the drinking water specified in Title 22, Chapter 15, Article 5, Sections 64442 and 64443, of the California Code of Regulations, or subsequent revisions."		Regional Board staff add the statement at the end of Section IV.C.2.b.x. of Fact sheet as:  "However, radioactive substances were not detected in the TIWRP effluent and thus there was no reasonable potential to establish effluent limitations for Gross alpha, Gross beta, Radium 226 & 228, Tritium, Strontium, and Uranium in the permit. This relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations."
		The current NPDES permit and MRP (R4-2005-0024) include effluent limitations and monitoring requirements for these radioactive substances that are also based on the drinking water MCLs. Per the historic data presented in Table 2 (Historic Effluent Limitations and Monitoring Data at EFF-001) on page F-13 of the Fact Sheet, the radiological substances were not detected in the effluent based on an MDL that was less than the effluent limitations. Data were only presented for gross alpha and gross beta particles. In accordance with the monitoring protocol in the MRP for R4-2005-0024 (see footnote 10 in Section VI.3 of the R4-2005-0024 MRP on page T-11), it was not necessary to collect data for the other radiological	X	Regional Board staff agree to remove the radioactivity numeric effluent limitations due to no reasonable potential to exceed MCLs.  Changes have been made.

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		substances with effluent limitations: "Analysis for combined Radium-226 & 228 shall be conducted only if gross alpha results for the same sample exceed 15 pCi/L or beta greater than 50 pCi/L. If Radium-226 & 228 exceeds the stipulated criteria, analyze for Tritium, Strontium-90 and Uranium." Because the substances were not detected, there is no reasonable potential to exceed effluent limitations in the permit, and therefore no basis for the limitations. Thus, the Best Professional Judgment argument to establish limits is invalid. The data constitute new information pertinent to the anti-backsliding provisions, and thus the old limits do not have to be retained to comply with anti-backsliding regulations. In addition, the permit already includes a discharge prohibition that addresses the issue of radiological contaminants. Discharge Prohibition III.G on page 20 of the tentative permit states: "The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited." Thus the Bureau recommends the following:			
		<ul> <li>Revise Table 7. Summary of Reasonable Potential Analysis at 001 on page F-35 of the Fact to show there is no reasonable potential for Gross alpha, Gross beta, Radium 226 &amp; 228, Tritium, Strontium, and Uranium.</li> <li>Revise Attachment F – Fact Sheet, C.2.xi, page F-33 as follows:         <ul> <li>"Radioactive substances were not detected in the TITP effluent and thus there was no reasonable potential to establish effluent limitations for Gross alpha, Gross beta, Radium 226 &amp; 228, Tritium, Strontium, and Uranium in the permit. This relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations. are generally present in natural waters in extremely low concentrations.</li> </ul> </li> </ul>	x	Regional Board staff agree.  Regional Board staff agree. See "Response to Comment" above.	Changes have been made.  Changes have been made.

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		Mining or industrial activities increase the amound of radioactive substances in waters to levels that are harmful to aquatic life, wildlife, or humans Regional Board staff used Best Professional Judgments to establish radioactivity limits for the effluent using Maximum Contaminant Levele (MCLs) for the drinking water specified in Title 22 Chapter 15, Article 5, Sections 64442 and 64443 of the California Code of Regulations, of subsequent revisions.  *Revise Section 6 on page F-19 of the Fact Shee as follows:  *Anti-Backsliding Requirements.* Sections 402(0)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations 16 section 122.44(I) prohibit backsliding in NPDES permits. These antifications in a reissued permit must be astringent as those in the previous permit, with some exceptions in which limitations may be relaxed. All conventional and most non conventional pollutants effluent limitations in the Order are at least as stringent as the effluent limitations in the previous Order. Most of the priority pollutants from the previous Order were deleted because they did not show reasonable potential to be in the effluent water. Specifically new information on effluent and receiving monitoring data indicated that the following pollutants have no reasonable potential; : Gross alpha, Gross beta, Radium 226 & 228, Tritium Strontium, Uranium, lead, mercury, nickel, silver cyanide, bis(2-ethylhexyl)phthalate, and dieldrin As discussed in this Fact Sheet, this relaxation of effluent limitations is consistent with the antifications.	t		Regional Board staff agree.	Changes have been made.

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		Revise Table 7. Effluent Limitations at 001 on page 21 of the tentative permit to delete the daily maximum effluent limitations for Gross alpha, Gross beta, Radium 226 & 228, Tritium, Strontium, and Uranium.	Х		Regional Board staff agree.	Deletion has been made.
22.	Tentative Order, Section IV.A.2.b, pg 21: Temperature	The Regional Board has proposed an effluent limitation for Temperature of 86 °F except as a result of external ambient temperature. Page F-33 of the Fact Sheet states that the rationale for this limitation is the Water Quality Control Policy Thermal Plan of California (Thermal Plan) and a White Paper developed by the Regional Water Board staff entitled Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region, which presumably incorporates comments previously received from staff of the California Department of Fish and Game.  The Bureau acknowledges that the appropriate standard for establishing temperature limitations is reflected in the Thermal Plan as requiring discharges from the TIWRP to "comply with limitations necessary to assure protection of beneficial uses." However, the White Paper that supports the proposed temperature limit is completely inadequate to form the basis of an effluent limitation. Further, the Bureau does not agree that the proposed effluent limitations are necessary to protect the existing beneficial uses given the existing dilution.  With regard to the White Paper to form the basis of effluent limits, the Bureau does not agree that the White Paper provides adequate information supporting the Regional Board's proposed Temperature effluent limitation for the following reasons:  • Use of the white paper as the basis for the limitation is inappropriate and premature. The		X	Regional Board staff propose an effluent limitation for Temperature of 86 °F, based on a White Paper entitled Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region, which is derived from USEPA document, Quality Criteria for Water 1986 [EPA 440/5-86-001, May 1, 1986], also referred to as the Gold Book. This Gold Book discusses temperature and its effects on beneficial uses, such as recreation and aquatic life in the following items, which have been added with Section IV.A.2.b of the Fact sheet.  • The Federal Water Pollution Control Administration in 1967 called temperature "a catalyst, a depressant, an activator, a restrictor, a stimulator, a controller, a killer, and one of the most important water quality characteristics to life in water." The suitability of water for total_body immersion is greatly affected by temperature. Depending on the amount of activity by the swimmer, comfortable temperatures range from 20 ℃ to 30 ℃ (68 °F to 86 °F).  • Temperature also affects the self-purification phenomenon in water bodies and therefore the aesthetic and sanitary qualities that exist. Increased temperatures accelerate the biodegradation of organic material both in the overlying water and in bottom deposits which makes increased demands on the dissolved oxygen resources of a given system. The typical situation is exacerbated by the fact that oxygen becomes less soluble as water temperature increases. Thus, greater demands are exerted on	Additional rationales have been added.

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		<ul> <li>White paper has not been fully vetted or scrutinized in a comprehensive manner that justifies application towards establishing an effluent limitation.</li> <li>It is unclear how or why the species in the White Paper were selected. For example, Steelhead would not be expected to occur in enclosed bays of southern California. Therefore, it's temperature tolerance should not apply to discharges in enclosed bays.</li> <li>The information on temperature seems incomplete for the species selected and there is no information presented on dissolved oxygen for any of the species listed, even though the document's title indicates impacts from 'dissolved oxygen' is one of the subjects.</li> <li>There is no information presented on salinity for any species. Temperature effects for Mytilus edulis larvae, for example, differ with varying salinity (see Salazar and Salazar 2000).Ghost shrimp inhabit Los Angeles-Long Beach Harbor. The statement is made that, in general, ghost shrimp "are found at temperatures below 59 °F". In 2009, as part of required monitoring in West Basin, Los Angeles Harbor, ghost shrimp were collected in infaunal samples. Bottom temperatures during summer water quality sampling at the stations where ghost shrimp were collected were 63 °F (MBC 2010). Thirty-five bay ghost shrimp were also collected in Shoreline Lagoon in 1994; bottom temperature at that station was 68.2 °F (MBC 1994).</li> <li>It is not clear how the authors formulated the table on page 3. The optimal temperatures for steelhead, for example, were rounded differently</li> </ul>	eles da	an increasingly scarce resource which may lead to total oxygen depletion and obnoxious septic conditions. Increased temperature may increase the odor of water because of the increased volatility of odor-causing compounds. Odor problems associated with plankton may also be aggravated.  • Temperature changes in water bodies can alter the existing aquatic community. Coutant (1972) has reviewed the effects of temperature on aquatic life reproduction and development. Reproductive elements are noted as perhaps the most thermally restricted of all life phases, assuming other factors are at or near optimum levels. Natural short-term temperature fluctuations appear to cause reduced reproduction of fish and invertebrates.  In addition, the statement of temperature in Section IV.C.2.b.xii. has been revised as:  "The Basin Plan lists temperature requirements for the receiving waters. Based on the requirements of the Basin Plan and a white paper developed by Regional Water Board staff entitled Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region, a maximum effluent temperature limitation of 86 °F is included in the Order. The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. The new temperature effluent limitation is reflective of new information available that indicates that the 100 °F temperature which was formerly used in permits was not protective of aquatic organisms. A survey was completed for several kinds of fish and the 86 °F	
		table on page 3. The optimal temperatures for		which was formerly used in permits was not protective of aquatic organisms. A survey was	

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		86°F were derived based on the summary table in the White Paper. The "optimal temperatures" identified available for only four of the six species ranged from 55 to 78°F, and the "lethal temperatures" for five of the six species ranged from 73 to 104°F.  • The vast majority of the cited publications were not performed relative to waters in southern California. Most of these citations appear to pertain to waters in Canada, the Pacific Northwest, the San Francisco Bay, England, North Carolina, etc. Thus it is unclear whether the conclusions are even relative to the Los Angeles Harbor. For example, the White Paper states that "Malibu Creek is the southern most stream known to contain steelhead." The TIWRP does not discharge into Malibu Creek.  • White Paper's conclusions do not in any way discuss water bodies other than the San Gabriel River estuary.  • It is unclear whether the comments the Regional Board staff received from the Department of Fish and Game were appropriately considered in the White paper, and what those comments were. The Regional Board has not provided a transcript of the DFG's comments. (See Fact Sheet p. F-73).  Additional discussion of the White Paper is provided in Attachment 4 of the Bureau's comment submittal package.  Notwithstanding the inadequacy of the White Paper to form the basis of an effluent limit, if a temperature limit other than the current limit of 100 °F were developed appropriately, the dilution credit established in item No. 25 of Regional Board Order No. R4-2008-0024 under Purpose of the Order, and reiterated in the Tentative	eles da	average limitation for temperature, because it is not as protective as of beneficial uses as a daily maximum limitation is. A daily maximum limit is necessary to protect aquatic life and is consistent with the fishable/swimmable goals of the CWA." plus the above bullets.					

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		that the "most conservative dilution credit of 61 was chosen for calculating the final effluent limits for the purpose of protecting aquatic life, human health, and receiving water quality" Specifically, the effect of such effluent dilution in the receiving water will immediately dissipate heat from the effluent to a temperature that would be below a level of concern. We note that the discharge of effluent under several conservative scenarios would not cause the receiving water to exceed 86 °F within the mixing zone and incorporating dilution – though the Bureau does not agree that this temperature limitations is appropriate as discussed previously.  This is shown demonstrated by the calculations below:  Scenario 1: Effluent T=100 °F; Dilution = 61:1  Tf = (Qeff x Teff + Qrw x Trw)/(Qeff + Qrw)  Tf = (1 x 37.78 + 61 x 22.8)/(1 + 61) = 22.9 °C  (73.5 °F)  Where,  Tf = Final receiving water temperature within the mixing zone  Teff = Current effluent temperature limitation  Trw = Maximum observed ambient temperature 22.8 °C (73 °F), which was measured at HW65 on 10 September 2009  Qrw = specific dilution flow per dilution credit  Qeff = specific dilution flow per dilution credit  Scenario 2: Effluent T = 88 °F; Dilution = 61:1  Applying the same assumptions above in Scenario 1, but assuming the effluent was discharged at 88 F (highest observed effluent temperature between January 2006 and February 2010), final mixing zone receiving water temperature would be a mere 73.2 °F, and increase of only 0.2 °F.				

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23.	Tentative Order, Section IV.A.2.c, pg 21: Turbidity	Scenario 3: Effluent T = 88 °F; Dilution = 1:1  Assuming an even more conservative mixing of one part receiving water to one part effluent, the final temperature of the receiving water would be 80.6 °F, which is well below the Regional Board's proposed limitation for protecting aquatic life.  In all three scenarios, the temperature in the receiving waters is well below the Regional Board's proposed limitation for protecting aquatic life.  Lastly, it is unclear whether the Regional Board provided an economic or environmental analysis of what amounts to a new objective as required by Porter Cologne. The Bureau does not believe that there is good scientific justification for incorporating this new temperature limit and it is not being implemented in accordance with the Administrative Procedures Act.  Given these issues, the Bureau requests that the proposed 86°F effluent temperature limit be replaced with the existing 100°F limit.  The permit states: "For the protection of the water contact recreation beneficial use, the wastes discharged to water courses shall have received adequate treatment, so that the turbidity of the wastewater does not exceed any of the following: (a) an average of 2 Nephelometric turbidity units (NTUs) within a 24-hour period; (b) 5 NTUs more than 5 percent of the time (72 minutes) within a 24-hour period; and (c) 10 NTU at any time." The Fact Sheet states: " is based on the Basin Plan (page 3-17) and Section 60301.320 of Title 22, Chapter 3, "Filtered"		×	Regional Board staff disagree. The statement of turbidity specified in Section IV.A.2.c. is not only technology-based but water quality-based. It has recently been adopted by this Regional Board for all POTW Permits. Also see "Response to Comment" No. 12.	None necessary.
		Wastewater" of the California Code of Regulations."  Turbidity limitations are not necessary to ensure compliance with water quality standards but instead ensure that tertiary treatment facilities are operating		X	Regional Board staff disagree. Also see "Response to Comment" No. 12.	None necessary.

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24.	Tentative Order,	properly. Because such limitations are not water quality based, the Regional Board maintains the discretion to label these requirements as "Special Provisions" rather than effluent limitations. This approach has been upheld by the State Water Board as an appropriate use of the Regional Board's discretion. (See Order No. 2009-0012 at p. 8.) In light of the State Water Board's findings, the Bureau recommends that the tentative permit be amended to remove the effluent limitations for turbidity. Instead, turbidity provisions should be included in section VI.C.4 of the permit on or about page 37.  Paragraph IV.A.2.e.ii provides that "[t]here shall be no				
24.	Section IV.A.2.e.ii, pg 22 and Tentative Order, Section V.A.2.e.iv, pg 23 and Tentative Order, Section IV.A.2.e.iv, pg 23, Footnote 25: Chronic Toxicity Trigger and Requirements	chronic toxicity in the effluent discharge." The Bureau believes this mandate is not consistent with the intent behind footnote 25. Therefore, the Bureau requests that Regional Board staff modify Paragraph IV.A.2.e.ii as follows:  There shall be no chronic toxicity in the effluent discharge where a dilution credit of 61 is granted.  Fact Sheet Section IV.C.5.f asserts that this narrative limitation for chronic toxicity is based on State Water Resource Control Board Order No. 2003-0012, which the Tentative Order asserts is a "precedential decision." However, State Board Order No. 2003-0012 does not appear to clearly indicate it is intended to force Regional Boards to apply this standard to discharges of tertiary treated effluent to enclosed bays such as the Los Angeles Harbor. We note that the State Board decision pertained to discharges of tertiary treated effluent to two inland surface waters including Reach 1 of the San Gabriel River (1,230 feet upstream of the Artesia Freeway above the San Gabriel River Estuary) and Coyote Creek (2,200 feet upstream from the confluence of Coyote Creek and the San Gabriel River). In particular, the State Board's	x	×	Regional Board staff disagree with the proposed language, because it does not mention that the dilution credit applies within the mixing zone, nor is the mixing zone defined.  There shall be no chronic toxicity as a result of the effluent discharge, at the edge of the mixing zone.  According to the TSD, section 2.2.2, "To ensure mixing zones do not impair the integrity of the waterbody, it should be determined that the mixing zone will not cause lethality to passing organisms and, considering likely pathways of exposure, that there are no significant human health risks."	Changes have been made. None necessary.

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		decision was premised on its review of the petition as it pertained to "the propriety of including numeric effluent limitations for chronic toxicity in NPDES permits for publicly-owned treatment works that discharge to inland waters" (italics added). Although the State Board did not reach a decision on the issue of numeric effluent limits in its decision, it seems clear that revising the limit as shown above would not contravene the intent behind the decision reached in the Coyote Creek decision.  In addition, while the Bureau agrees with assertion in Footnote 25 that "[i]t is because the chronic toxicity in the receiving water was no greater than the water criteria objective of 1 TUc in 2009 and the first quarter of 2010" the Bureau requests this section be revised to reference the SIP for clarity as follows:  Use of this dilution credit is consistent with the SIP It is because, the chronic toxicity in the receiving water was no greater than the water criteria objective of 1 TUc in 2009 and the first quarter of 2010—was greater than the chronic toxicity in the receiving water. The same rationale		×	Regional Board staff partially agree to modify Footnote 26 as:  "Chronic toxicity is granted with the dilution credits of 61, which is consistent with Section 1.4.2 of SIP. It is because the chronic toxicity in the receiving	Some changes have been made.
		was used fro ammonia, MBAS, and copper.  Any change to the permit also needs to be reflected in the Fact Sheet – Attachment F as appropriate.			water"	
25.	Tentative Order, Section IV.A.2.d-e, pg 22-23 and Attachment E (MRP), Section VI.A & B, pg E-17 & pg E-19: Language Consistency	The accelerated monitoring provisions for effluent toxicity are effectively dealt with in the Monitoring and Reporting Program (MRP) Sec. VI.A and VI.B. Describing the accelerated toxicity monitoring provisions in both Tentative Order Section IV (Effluent Limitations and Discharge Specifications) and the MRP is confusing unless the language in the Order repeats verbatim the corresponding language in the MRP and the same format is used. The Bureau requests that the increased monitoring provisions in	X		Regional Board staff agree.	Changes have been made.

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		the MRP be incorporated by reference in the Section IV as necessary.				
26.	Tentative Order, Section IV.A.2.e.iii, pg 23: Typo	Please change "Dentraster" to read Dendraster	X		Regional Board staff agree.	Change has been made.
27.	Tentative Order, pg 23, Footnote 25: Typo	Add the letter "r" to the word chronic	X		Regional Board staff agree.	Change has been made.
28.	Tentative Order, Section IV.A.2.e.iv, pg 23: Typo	"than the Discharger shall" should be "then the Discharger shall"	X		Regional Board staff agree.	Change has been made.
29.	Tentative Order, Section IV.B.1, pg 23: Current Reclaimed Project	The Bureau requests that the last sentence be revised to note that brine and tertiary effluent will continue to be discharged.	X		Regional Board staff agree the last sentence revised as:  "However, unreclaimed tertiary-treated effluent may be discharged occasionally to the Harbor due to fluctuations in demand for water reuse."	Changes have been made.
30.	Tentative Order, Section IV.B.2, pg 23: Future Reclaimed Water Project	The Bureau requests the deletion of the 22.5 MGD of recycled water as there will not be enough inflow to the plant to produce that amount of recycled water.		X	Regional Board staff disagree, because this statement is based on the Regional Board Resolution No. 94-009 and the City of Los Angeles' Harbor Water Recycling Project – Dominguez Gap Barrier Project, Order No. R4-2003-0134. See "Response to Comment" No. 3.	None necessary.
31.	Tentative Order, Section V.A, pg 24: Receiving water limitations are based on water quality objectives contained in the Basin Plan.	The cited rationales for several decisions made in the Tentative Order are not consistent. For example, the Fact Sheet provides that "[r]eceiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order." (Fact Sheet Section V.A). However, the Title 22 limits for Radioactivity reflected in Table 7 are shown in Table 3-9 of the 1994 Basin Plan, but only for "[w]aters designated for use as domestic or municipal supply (MUN)" (Basin Plan p. 3-15), which is not an approved designated use for the Los Angeles Harbor. After explaining that the Order protects not only surface receiving water but also underlying groundwater that is identified as a source of drinking water recharged by the surface water, the Fact Sheet asserts that "effluent limitations for [priority and nonpriority pollutants] are	X		Regional Board staff agree to remove final effluent limitations for radioactivity. See "Response to Comment" No. 21.	Changes have been made.

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		not warranted [because] there is no reasonable potential to exceed the groundwater criteria" based on the "results of reasonable potential analysis" (Fact Sheet Section V.B). Therefore, a MUN designation for the receiving water or an RPA showing the potential to exceed criteria designed to protect the underlying groundwater, where a MUN designation applies, would be necessary to require compliance with the Title 22 limits. However, none of the receiving waters shown on Table 6 (Section II.H, p. 12) has a MUN designation or even a groundwater recharge designation.	X	Regional Board staff agree to remove the statement of groundwater protection from the permit.	Changes have been made.
		The Bureau acknowledges that the Fact Sheet Section IV.C.2.b.xi explains that Regional Board staff used Best Professional Judgment (BPJ) to establish radioactivity limits for the effluent using the Title 22 limits for the drinking water I (See Comment #22). However, the fact remains that there is no MUN designation for the receiving water and no reasonable potential to exceed the groundwater criteria was determined for the groundwater recharge beneficial use.	X	Regional Board staff agree to remove final effluent limitations for radioactivity. See "Response to Comment" No. 21.	Changes have been made.
		The Bureau respectfully requests the Radioactivity effluent limitations be removed from Table 7. Any change to the permit also should be made in the Fact Sheet – Attachment F.	X	Regional Board staff agree to remove final effluent limitations for radioactivity. See "Response to Comment" No. 21.	Changes have been made.
32.	Tentative Order, Section V.A.1.b, pg 25, Paragraph 2: Shellfish Harvesting Standards	The permit states: "At all areas where shellfish may be harvested for human consumption, as determined by the Regional Board, the waste discharged shall not cause the following bacteriological standards to be exceeded:"  This limitation is vague and should not be applied unless the RWQCB first amends the Basin Plan to revise the beneficial uses of subject receiving waters from "Potential" to "Existing" for shellfish harvesting based on adequate research substantiating that		Regional Board staff disagree. Shellfish harvesting is listed as an existing beneficial use in the Basin Plan for Public Beach Areas in Los Angeles-Long Beach Harbor, and as a potential beneficial use for Outer Harbor, Marinas and All Other Inner Areas. Some people might collect mussels to eat from these areas, therefore, the bacteriological standards for shellfish harvesting shall stay.	None necessary.

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		shellfish harvesting actually is an existing beneficial use. The Bureau requests that this limitation be removed until after approval of such Basin Plan amendment. Any change to the permit also should be made in the Fact Sheet – Attachment F.			
33.	Tentative Order, Section V.A.1.b, pg 25: a. Redundancy. b. Limitations in method application		X	Regional Board staff agree to revise the statement as "The median total coliform concentration throughout the water column for any 30-day period shall not exceed 70 per 100 ml, nor shall-more than 10 percent of the samples collected during for any 30-day period shall exceed 230 per 100 ml-for a five-tube decimal dilution test or 330/100 ml when a three-tube decimal dilution test is used."	Changes have been made.
34.	Tentative Order, Section V.A.6.c, pg 26: The acute toxicity of the receiving water, at the "Stations HW23 and HW33, located upstream and downstream, respectively, of the discharge,"	Upstream or downstream of discharge is inappropriate. Please change the text to indicate the direction of the stations from (i.e., east/west) the discharge.		Regional Board staff agree.	Changes have been made.
35.	Tentative Order, Section V.A.7.d, pg 27: "If the chronic toxicity of the receiving water upstream of the discharge is greater than the	Since the discharge point is in the Los Angeles Harbor, use of upstream or downstream of discharge is inappropriate and should be deleted.	X	Regional Board staff agree.	Changes have been made.

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36.	downstream" Tentative Order, Section V.A.8, pg 27: Ammonia	The permit states: "The wastes discharged shall not cause the ammonia water quality objective in the Basin Plan to be exceeded in the receiving waters. Compliance with the ammonia water quality objectives shall be determined by comparing the receiving water ammonia concentration to the ammonia water quality objective in the Basin Plan. The ammonia water quality objective can also be calculated using the pH and temperature of the receiving water at the time of collection of the ammonia sample." This implies that the objective is expressed as total ammonia — in the next paragraph, the ammonia objectives are expressed as un-ionized ammonia.		X	Regional Board staff disagree! Saltwater Ammonia Water Objectives for Total Ammonia contain two parts, including unionized ammonia (independent of pH, temperature, and salinity) and ionized ammonia (dependent of pH, temperature, and salinity). See detailed calculations clearly specified and defined in Section IV.C.2.b.vii. and Attachment M.	None necessary.
		This language conflicts with Permit Finding H.1 on pg 13: "For inland surface waters not characteristic of freshwater (including enclosed bays, estuaries, and wetlands), the proposed objectives are a 4-day average concentration of unionized ammonia of 0.035 mg/L, and a one-hour average concentration of unionized ammonia of 0.233 mg/L. The proposed objectives are fixed concentrations of unionized ammonia, independent of pH, temperature, or salinity."		X	The City of Los Angeles missed the second part of Saltwater Ammonia Water Quality Objective, which is right after the statement of "The proposed objectives are fixed concentrations of unionized ammonia, independent of pH, temperature, or salinity." It says "The proposed amendment includes an implementation procedure to convert un-ionized ammonia objectives to total ammonia effluent limits."	None necessary.
		As total ammonia may be expressed as unionized ammonia via the pH, temperature, and salinity relationships governing the protonation of ammonia, the Bureau requests the Permit be consistently written in terms of total ammonia. Furthermore, the Bureau requests the Permit clarify that the pH, temperature, and salinity are used to convert unionized ammonia criteria into total ammonia effluent limitations.		X	Again, total ammonia in the tentative permit contains two parts, including unionized ammonia (independent of pH, temperature, and salinity) and ionized ammonia (dependent of pH, temperature, and salinity).	None necessary.
37.	Tentative Order, Section VI.C.1.c, pg 31: Reopener Provisions	The permit states: "This Order may be modified, in accordance with the provisions set forth in 40 CFR, Parts 122 and 124 to include requirements for the implementation of the watershed protection management approach."	X		Regional Board staff agree.	Changes have been made.

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38.	Tentative Order, Section VI.C.1.f, pg 32: Re-opener Provisions for New MLs	The Bureau recommends that this provision be modified to appropriately reference the applicable federal regulations to modify permits. The federal regulations cited in the permit provision are too broad and do not reflect how modifications are handled. We believe this provision should specifically refer to 40 CFR 122.62 and 40 CFR 124.5(c). Both of these sections expressly address permit modifications and the conditions under which modifications can occur. When a permit is modified, only the conditions subject to modification are reopened (see §124.5(c)(2)). For these reasons, we recommend that this provision be revised as follows:  "This Order may be modified, in accordance with the provisions set forth in 40 CFR, Parts 122.62 and 124.5(c)(2) to include requirements for the implementation of the watershed protection management approach."  The permit states: "This Order may be modified, in accordance with the provisions set forth in 40 CFR, Parts 122 to 124, to include new MLs."  The Bureau recommends that this provision be modified to appropriately reference the applicable federal regulations to modify permits, and the provisions in the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP) related to using MLs not included in the SIP. The federal regulations cited in the permit provision are too broad and should refer to 40 CFR 122.62 and 40 CFR 124.5(c). Both of these sections expressly address and the conditions under which present modifications can occur. When a permit is modified, only the conditions subject to modification are reopened (see §124.5(c)(2)). Modifying a permit to include new MLs should be done in accordance with	X	Regional Board staff agree.	Changes have been made.

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		Section 2.4.3 of the SIP. For these reasons, the Bureau recommends that this provision be revised as follows:  "This Order may be modified, in accordance with the provisions set forth in 40 CFR, Parts 122.62 and to 124.5(c)(2), and Section 2.4.3 of the SIP, to include new MLs."			
39.	Tentative Order, Section VI.C.1.g-j, pg 32: Reopener Provisions	There are no federal regulations cited in the permit provisions to reflect how modifications are handled. The Bureau believe these provisions should specifically refer to 40 CFR 122.62 and 40 CFR 124.5(c). Both of these sections expressly address permit modifications and the conditions under which modifications can occur. When a permit is modified, only the conditions subject to modification are reopened (see §124.5(c)(2)). For modification, revocation, or reissuance of effluent limitations, the provisions should also refer to 122.44(b)(1) and 122.44(d)(1)(vi)(C)(4). For this reason, the Bureau recommends that these provisions be revised as follows:			
		"g. This Order may be reopened and modified in accordance with the provisions set forth in 40 CFR Parts 122.44(b)(1), 122.44(d)(1)(vi)(C)(4),122.62 and 124.5(c)(2), to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of a water quality objective, the adoption of a site specific objective, or the adoption of a TMDL for the San Gabriel River Watershed.	×	This Section has been revised as:  "This Order may be reopened and modified in accordance with the provisions set forth in 40 CFR Parts 122.44(b)(1), 122.44(d)(1)(vi)(C)(4),122.62 and 124.5(c)(2), to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of a water quality objective, the adoption of a site specific objective, or the adoption of a TMDL for the—San Gabriel River Watershed Dominguez Channel — Los Angeles/Long Beach Watershed Management Area."	Changes have been made.
		h. This Order may be reopened and modified in accordance with the provisions set forth in 40 CFR Parts 122.44(b)(1), 122.44(d)(1)(vi)(C)(4),122.62 and	Х	This section has been revised as:  "This Order may be reopened and modified in	Changes have been made.

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		124.5(c)(2), to revise effluent limitations as a result of the delisting of a pollutant from the 303(d) list.		accordance with the provisions set forth in 40 CFR Parts 122.44(b)(1), 122.44(d)(1)(vi)(C)(4), 122.62 and 124.5(c)(2), to revise effluent limitations"	
		i. This Order may be reopened and modified in accordance with the provisions set forth in 40 CFR Parts 122.44(b)(1), 122.44(d)(1)(vi)(C)(4),122.62 and 124.5(c)(2) to revise the chronic toxicity effluent limitation, to the extent necessary, to be consistent with State Board precedential decisions, new policies, new laws, or new regulations.	X	This section has been revised as:  "This Order may be reopened and modified in accordance with the provisions set forth in 40 CFR Parts 122.44(b)(1), 122.44(d)(1)(vi)(C)(4),122.62 and 124.5(c)(2) to revise the chronic toxicity effluent limitation,"	Changes have been made.
		j. This Order may be reopened in accordance with the provisions set forth in 40 CFR Parts 122.44(b)(1). 122.44(d)(1)(vi)(C)(4), 122.62 and 124.5(c)(2) to modify final effluent limitations, if at the conclusion of necessary studies conducted by the Discharger, the Regional Board determines that dilution credits, attenuation factors, water effects ratio, site specific objectives, or metal translators are warranted. If EPA approves site-specific objectives for ammonia in downstream receiving water locations, this Order may be reopened to consider the site-specific objectives."	X	This section has been revised as:  "This Order may be reopened in accordance with the provisions set forth in 40 CFR Parts 122.44(b)(1), 122.44(d)(1)(vi)(C)(4), 122.62 and 124.5(c)(2) to modify final effluent limitations,"	Changes have been made.
		The Bureau also requests the strikeout of the San Gabriel River Watershed TMDL as it is not applicable to TIWRP.	X	See above.	Changes have been made.
40.	Tentative Order, Section VI.C.2.a, pg 33-34: Special Studies CECs	The permit states: "The City shall submit a Work Plan within 6 months of the effective date of this Order, subject to the approval of the Executive Officer, to conduct a CEC Special Study." The study lists specific CECs in Table 8, methodologies, and reporting.  The justification provided to conduct the study does			
		not meet the specificity in Water Code section 13267(b), which provides that the Regional Board may require technical or monitoring reports so long as "[t]he burden, including costs, of these reports shall bear a			

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		reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports." The Regional Board has not met the above specifications for the following reasons:				
		<ul> <li>The Fact Sheet does not provide information on the need for the special study. The permit simply states there is a paucity of information on CEC occurrence and monitoring is a vital first step.</li> <li>No information has been provided on the cost of the CEC Special Study and the relation that such costs would bear to the need for the report and benefits to be obtained from it.</li> <li>The permit makes no attempt to examine current literature on occurrence in wastewater in selecting the CECs to be monitored or why they are important in evaluating this particular discharge.</li> </ul>	× ×		The Fact sheet has been amended to include more information. Please see the revised Section VII.B.2.a. Constituents of Emerging Concern in the Effluent in Fact Sheet.  See "Analytical Service Quotation" at the end of "Response to Comments".  Please also see the revised Section VII.B.2.a. Constituents of Emerging Concern in the Effluent in Fact Sheet.	Changes have been made.  Change has been made.  Changes have been made.
		Additionally, while the Bureau does not want to obstruct efforts by the Regional Board to develop information on CECs in wastewater effluent, it is not clear why this effort must begin in advance of ongoing national and state efforts to develop a scientifically defensible approach to CEC monitoring in coastal environments. Of specific importance is the Advisory Panel for CECs in Coastal and Marine Ecosystems (Coastal and Marine Ecosystems Panel), which is being facilitated by the Southern California Coastal Water Research Project. The Coastal and Marine Ecosystems Panel will provide the State Water Board with recommendations on how to best collect data on CECs and limit the impact of CECs on coastal and marine ecosystems, such as the Los Angeles Harbor. The Coastal and Marine Ecosystems Panel was			Footnote 31 has become Footnote 32 due to adding a new Footnote. Regional Board staff agree to revise Footnote 32 as:  "The City shall monitor additional emerging chemicals upon requested by Given the evolving state of research, science, and policy in the area of CECs, the Executive Officer can add or remove emerging chemicals including CECs from the monitoring program."  Therefore, CECs Special Study can be modified with facts such as EPA requirements, or suggestions or conclusions made by the Coastal and Marine Ecosystems Panel and be approved the Executive Officer.	

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		convened in 2009 and is expected to complete its work in 2011. The Coastal and Marine Ecosystems Panel is addressing the following six questions:  1. What are the relative contributions of CECs discharged into coastal aquatic systems from wastewater and stormwater?  2. What specific CECs, if any, are most appropriate for monitoring in discharges to coastal aquatic systems and what are the applicable monitoring methods and detection limits?  3. How are these priority constituents affected by the chemistry, biology and physics of treatment in wastewater systems, by discharge into and transport by coastal streams, rivers and estuaries, and as a result of mixing and dilution with receiving coastal and ocean waters?  4. What approaches should be used to assess biological effects of CECs to sentinel species in coastal aquatic systems?  5. What is the appropriate design (e.g., media, frequency, locations) for a CEC monitoring and biological effects assessment program given the current state of the art for monitoring methods, and what level of effects will be detectable with such a monitoring program? How does the sensitivity of the monitoring and assessment program vary with investment?  6. What concentrations of CECs or levels of biological effects should trigger further actions and what options should be considered for further actions?  It is apparent that these questions go to the heart of the matter described by the Regional Board in the Tentative Order with regard to understanding which CECs to monitor, how to monitor them, and what the potential impacts may be. Thus it will be crucial to				

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		have the recommendations from the Coastal and Marine Ecosystems Panel in place before designing and implementing the Special CEC Study required in the Tentative Order to ensure that the Bureau collects meaningful scientific information for the Regional Board.				
		This timing for collection of meaningful data was echoed by the State Water Board regarding the City of Stockton wastewater NPDES permit, where they opined that "[a]t this point in time the science is too uncertain to require each POTW to monitor for a host of materials that have the potential to be found in its discharge." (See Order No. WQO 2009-0012 at p. 9.)				
		The Bureau is not adverse to conducting CEC monitoring, but believe it is premature to start the Special CEC Study now given the City of Los Angeles' the status of the Coastal and Marine Ecosystems Panel. It would be prudent to revise the permit so that CEC Special Study is based on and commences after the Coastal and Marine Ecosystems Panel's recommendations have been finalized.				
		Thus, the Bureau requests that Section VI.C.2 in the Tentative Order be revised as follows:				
		2. Special Studies, Technical Reports and Additional Monitoring Requirements				
		a. Special Study – Constituents of Emerging Concern in the Effluent				
		The City shall submit a Work Plan within 6 months of issuance of the final recommendations from the Advisory Panel for CECs in Coastal and Marine Ecosystems (Panel). the effective date of this Order, subject to the approval of the Executive Officer, to		X	Regional Board staff disagree. However, Regional Board staff agree to revise Footnote 27 (Footnote 26 has become Footnote 27 due to adding a new Footnote) as:	Some changes have been made.

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		work Plan shall be based on the recommendations of the Panel and shall commence after the Executive Officer has approved the Work Plan. This Work Plan must address the following:  i. CECs to Monitor in the Effluent and Monitoring Frequency — to be based on the Panel recommendations.— The City shall monitor the following chemicals specified in Table 8 at the EFF-001.  Delete Table 8		X	"These chemicals need to be monitored-during the time period from July 1 to September 30 every other year starting in 2011. Monitoring shall occur in the first half of the calendar year so that the results can be presented in the first biannual report."  Section VI.C.2.a.i. has been revised as:  "CECs to Monitor – The City shall monitor the following chemicals specified in Table 8 at the EFF-001 containing tertiary-treated wastewater and brine waste."	Some change has been made.
		ii. Analytical Methodology – The City shall use methodologies included in the Panel recommendations listed in USEPA Methods 1694 and 1698, methodologies approved by the California Department of Public Health, or methodologies approved by the Executive Officer.		X	Section 2.a.ii. of the Order has been revised as:  "Analytical Methodology – The City shall use methodologies listed in USEPA Methods 1694 and or 1698, methodologies approved by the California Department of Public Health, methodologies approved by the State Board, or"	Changes have been made.
		iii. Reports – The City shall submit the progress annual reports to this Regional Board by December 31, 2011, 2012, and 2013. Once the CEC Special Study has begun, the City shall include CEC data from the CEC Special Study in the Annual Reports in accordance with Section X.D.1 of the Monitoring and Reporting Program, and a final report to this Regional Board by December 31, 20154.			Section 2.a.iii. of the Order has been revised as:  "Reports – The City shall submit the progress annual reports to this Regional Board by December 31, 2011, 2012, and 2013, and 2015a final report to this Regional Board by December 31, 2014."	Changes have been made.
41.	Tentative Order, pg 33, Footnote 31: CEC monitoring	The Bureau requests that if footnote 31 is not removed per comment #40 that it be amended to read as follows:	Х		Footnote 31 has become Footnote 32 due to adding a new Footnote. Regional Board staff agree to revise Footnote 32 as:	Changes have been made.
		The city shall monitor additional or request the removal of some of emerging chemicals compounds upon			"The City shall monitor additional emerging chemicals upon requested by Given the evolving	

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		approval of the Executive Officer.  This is necessary in case the standards for testing of some of these chemicals can not be obtained.			state of research, science, and policy in the area of <u>CECs</u> , the Executive Officer <u>can add or remove</u> <u>emerging chemicals including CECs from the monitoring program."</u>	
42.	Tentative Order, Section VI.C.2.a.i, pg 33, Table 8: Cortisol, 11- Ketotestosterone, Octylpolyethoxylate s, lohexal	The Bureau has not been able to find a laboratory that can analyze these constituents. Weck Labs, Test America Lab, and Columbia Analytical were contacted. The Bureau requests that if revisions are not made per comment #40 the following compounds be removed from the special study list since there are not included in EPA methods 1694 or 1698 and none of the major wastewater laboratories have the ability to analyze for these constituents.			Regional Board staff agree to delete these chemicals form Table 8.	Changes have been made.
43.	Tentative Order, Section VI.C.2.a.ii, pg 34: Special study CEC	The Bureau requests that if revisions are not made per comment #40 that this section be amended as follow: The City shall use methodologies listed in USEPA Methods 1694 and or 1698	X		Regional Board staff agree.	Changes have been made.
44.	Tentative Order, Section 2.a.ii, pg 3: CEC Special Study – monitoring methods	Permit states "Analytical Methodology – The City shall use methodologies listed in USEPA Methods 1694 and 1698, methodologies approved by the California Department of Public Health, or methodologies approved by the Executive Officer."				
		Notwithstanding the request to remove the requirement for a special study for CECs per Comment #40, it is inappropriate to specify the use of these two EPA methods (1694 and 1698) for the analysis of pharmaceuticals and personal care products (PPCPs) and hormones. These methods are not approved/promulgated in 40 CFR Part 136 and there is national concern about their performance and reliability. These issues are more fully discussed in the October 9, 2008 letter to U.S. EPA from the National Association of Clean Water Agencies, which is provided in Attachment 5. In addition, at the September 20, 2009 meeting of the State Water Board Advisory Panel for CECs in Recycled Water, Dr. Andrew Eaton, Technical Director MWH Laboratories,		X	Regional Board staff met with staff from the City of Los Angeles on April 5, 2010 and were told that 4 CECs listed on Table 8 shall be removed due to no methodologies. Therefore, the City of Los Angeles shall be able to CECs monitoring in the Revised Table 8.	Changes have been made.

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		presented information on "Analytical Issues Related to Pharmaceutical Analysis." This presentation, which is provided as Attachment 6, provides additional information about the limitations of these U.S. EPA methods, limitations of other methods and laboratories regarding analysis of PPCPs, and an update on the Water Research Foundation Project "Evaluation of Analytical Methods for EDCs and PPCPs via Inter-Laboratory Comparison #4167." This project is evaluating the performance of several existing analytical methods for the analysis of endocrine disrupting chemicals and PPCPs by multiple laboratories in various water matrices, and will establish performance-based QA/QC criteria and guidelines to help utilities assess the most appropriate use of the methods. This research project will be completed in 2012. Information from the Recycled Water Panel is being considered by the State Water Board Science Advisory Panel on CECs in Coastal and Marine Ecosystems.				
		These limitations with methodology underscore the need to replace the requirement for annual CEC monitoring (including this subsection) and instead include a reopener provision that would incorporate CEC monitoring consistent with the State Board adopted monitoring recommendations pursuant to recommendations provided by the Science Advisory Panel on CECs in Coastal and Marine Ecosystems.		×	See "Response to Comments: No. 41.	None necessary.
45.	Tentative Order, Section VI.C.2.b, pg 34, Paragraph 2: Missing word		X		Regional Board staff agree.	Change has been made.
46.	Tentative Order, Section VI.C.2.b, pg 34: Missing	The Bureau recommends the description of accelerated monitoring requirements in this section should be replaced with a reference to MRP, Section	X		Regional Board staff agree. Missing section references have been added as:	Changes have been made.

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47	section reference	VI as applicable. In addition, the language, "If the effluent toxicity test result exceeds the limitation," should cite the section where the limitation(s) appear.			"If the effluent toxicity test result exceeds the limitation specified in Section IV.A.2.d.i and/or Section IV.A.2.e.iv, then the Discharger shall immediately implement accelerated toxicity testing that consists of six additional tests (see section VI of MRP), approximately every two weeks,"	
47.	Section VI.C.3.c, pg 36 and Tentative Order,	To avoid confusion, the Bureau recommends that the permit provisions, definition of RL in Attachment A, and the provisions in the MRP be revised as follows:			Decision Decision (for each to the state of	Observed
	Section VI.C.3.c.i, pg 36: Reported Minimum Level	<ul> <li>Permit VI.C.3.c "Definitions for Minimum Level (ML), Reporting Level (RL), a Reported Minimum Level (RML) and Method Detection Limit (MDL) are provided in Attachment A."</li> <li>Permit VI.C.3.c.i: "The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reported MLRL; or,"</li> </ul>			Regional Board staff agree to revise the statement as: "Definitions for DNQ, ND, Reporting Level (RL), a Reported Minimum Level (RML) and Method Detection Limit (MDL)" Regional Board staff agree.	Changes have been made.  Changes have been made.
		Attachment A: "Reporting Level (RL) is the ML (and <u>it's</u> associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or		X	Regional Board staff disagree to delete the suggestions made by the City of Los Angeles. This the standard language adopted in the recent NPDES Permits for POTWs.	None necessary.
		established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In				
		such cases, this additional factor must be applied to the ML in the computation of the RL."				

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		MRP I.A.f: "The monitoring report shall specify the USEPA analytical method used, the Method Detection Limit (MDL), and the Reporting Level (RL) [the applicable minimum level (ML) or reported Minimum Level (RML)] as defined in Attachment A for each pollutant."	X		Regional Board staff agree.	Changes have been made.
		Any other references to Reported Minimum Level or RML should be replaced with Reporting Level or RL.	X		Regional Board staff agree.	Changes have been made.
48.	Tentative Order, Section VI.C.3.c.i, pg 37: Phrase is unclear	The Bureau requests clarification of the sentence: An annual review and semiannual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;" implies that fish and other biota are sources of pollution when they are potential recipients of priority pollutants.			Section VI.C.3.c.i. is part of Pollutant Minimization Program (PMP). Once the City needs to conduct a PMP, submittals and actions shall include, but not be limited to, an annual review, and a semiannual monitoring of potential sources of the reportable priority pollutant(s).	None necessary.
49.	Tentative Order, Section VI.C.5.b.i, pg 38: Pretreatment Program Modifications	The permit states: "Any change to the Program shall be reported to the Regional Board in writing and shall not become effective until approved by the Executive Officer in accordance with procedures established in 40 CFR, 403.18." The Bureau requests revision of this provision to acknowledge that per 40 CFR 403.18, only substantial modifications must be approved. Any modification to the permit also needs to be made in the Fact Sheet.		X	<ul> <li>regulations of 40 CRF 403.18:</li> <li>40 CFR 403.18(d) Approval procedures for non-substantial modifications. (1) The POTW shall notify the Approval Authority of any non-substantial modification at least 45 days prior to implementation by the POTW, in a statement similar to that provided for in paragraph (c)(1) of this section.</li> <li>40 CFR 403.18 (c)(1) Approval procedures for substantial modifications. The POTW shall submit to the Approval Authority a statement of the basis for the desired program modification, a modified program description (see §403.9(b)), or such other documents the Approval Authority determines to be necessary under the circumstances.</li> </ul>	None necessary.
50.	Tentative Order, Section VI.C.6.c, pg 41: Missing reference	The Bureau requests a revision of Section VI.C.6.c as follows:  Reporting – The Regional Board initial notification under Section VI.C.6.a.iii shall be followed by:	X		Regional Board staff agree.	Change has been made.

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51.	Tentative Order, Section VI.C.6.c.ii, pg 42: Missing word	The Bureau requests the inclusion of the following word: ii. A written preliminary report within five working days	Х		Regional Board staff agree.	Change has been made.
52.	Tentative Order, Section VI.C.6.e, pg 43: Choice of language	The Bureau requests a revision as follows:  e. Activities Coordination – In addition, the Regional Board expects that the encourages the POTW's owners/operators will to coordinate their compliance		Х	Regional Board staff disagree. This is the standard language recently adopted by this Regional Board for the POTWs' NPDES Permits.	None necessary.
53.	Tentative Order, Section VII.C, pg 44, Paragraph 3: Incorrect Reference Missing phrase	The Bureau requests the revision of the reference to "Multiple Sample Data Reduction' Section above" to "Section VII.B. Multiple Sample Data." Also revise this paragraph as follows:  If the analytical resultthe Discharger shall collect up to four additional samples within the same calendar month. Less than four samples may be collected if compliance with the AMEL has been demonstrated based on the monitoring results.	X		Regional Board staff agree.	Changes have been made.
54.	Tentative Order, Section VII.D, pg 45, Paragraph 1: Data Management Problem	Average Weekly Effluent Limitation (AWEL): The reporting requirements, for the condition where a calendar week (Sunday to Saturday) crosses from one month into the next, are problematic from a data management point of view. The weekly average data is normally assigned to every Saturday (the last day of the calendar week). However, the requirements as specified in this permit state that the weekly average should be assigned to the previous month in certain circumstances – without stating what day of the week to assign it to (assumed to be the last day of the month). This will create the following reporting problems.  • It creates multiple levels of complexity to program the scenario in a reporting system that will be generating the weekly average value to be displayed on the report, or submitted electronically to CIWQS eSMR.  • Weekly average data is assigned inconsistently in				

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		the repositories (the source database and/or CIWQS). The weekly average results would be assigned on every Saturday for the first few weeks of the month, then on some arbitrary day for the last week of the month. When data is retrieved across periods longer than one month, having all the data assigned to the same day of the week would be more convenient for data handling and analysis.  It is usually confusing to report information for one month, when part of the dataset exists in a future month. It's like reporting information that hasn't occurred yet  Although there is some logic to reporting the weekly average in the month that has the most days for that week, the issues that it causes seem to far outweigh any value there may be for doing it.				
		The Bureau recommends having a consistent convention and always assigning the weekly average result to the Saturday at the end of the calendar week.	X		Section VII.D. of the Order is for SMR (hard copy reports), which is different form eSMR. Regional Board staff agree that the AWEL may be reported on the Saturday at the end of the calendar week for the purposes of eSMR.	None necessary.
55.	Tentative Order, Section VII.D, pg 45, Paragraph 1: Noncompliance for 7 days	The Bureau requests that Section II.D be revised as follows to be consistent with the approach in Section VII.C:  "If the average of daily discharges over a calendar week exceeds the AWEL for a given parameter, , an alleged violation will be flagged and the discharger considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance this will represent a single violation, an alleged violation will be flagged though the discharger may be considered out of compliance for each day of that week for that parameter potentially resulting in 7 days of non-compliance."		X	Regional Board staff disagree. Please see USEPA Memorandum "Issuance of Guidance Interpreting Single Operational Upset" (September 27, 1989).	None necessary.

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		The above approach reflects a more reasonable enforcement approach because discharge days that are not monitored for a parameter that exceeds a limitation, could have actually decreased the weekly average resulting in compliance with the applicable effluent limitation had the parameter actually been measured.			
56.	Tentative Order, Section VII.K, pg 47: Referencing	The paragraph refers to 'see Section B 'Multiple Sample Data Reduction' above.' However, the section above is titled simply 'Multiple Sample Data'. The word 'Reduction' is not there.		Regional Board staff agree to fix the typo.	Change has been made.
57.	Tentative Order, Section VII.N.1, pg 48: Formula for Geometric Mean	Please superscript "1/n" in the formula for Geometric Mean or use the convention "**1/n").	X	Regional Board staff agree to fix the typo.	Change has been made.
58.	Tentative Order, Section VII.N.4, pg 48: Include <i>E. coli</i>	The Bureau requests that <i>E. coli</i> be included in the sentence to reflect test method for shoreline monitoring. Section VII.4 should read, "Detection methods used for Enterococcus and <i>E. coli</i> shall be those presented in the USEPA publication EPA 600/4-85/076, Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure or any improved method determined by the Executive Officer and/or USEPA to be appropriate." Although <i>E. coli</i> may be implied in Section VII.N.3, Section N.4 specifically mentions <i>E. coli</i> in the text reference, so it should be appropriate to include alongside Enterococcus.	X	Regional Board staff agree to add E. coli.	Change has been made.
59.	Attachment A (Definitions), pg A- 1 to A-4: Use of acronyms in definitions	Please include full terminology when using acronyms within individual definitions. For example: Detected, but Not Quantified (DNQ) are those sample results less than the RL Reporting Limit, but greater than the laboratory's MDL Method Detection Limit.	X	Regional Board staff agree.	Changes have been made.
60.	Attachment A (Definitions), pg A- 4: Definition of Toxicity Reduction	Although the term TIE is described within the definition of TRE, the Bureau requests that a definition for TIE be included in Attachment A.	X	Regional Board staff agree.	Changes have been made.

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	Evaluation (TRE) and Toxicity Identification Evaluation (TIE)					
61.	Attachment A (Definitions), pg A- 4: Definition of "Source of Drinking Water"	Sources of Drinking Water). Please revise this term to the plural form and the definition accordingly.	X		Regional Board staff agree. However, the "Sources of Drinking Water Policy" shall be removed from this Order, because there is no MUN designated to the entire Los Angeles-Long Beach Harbor.	Changes have been made.
62.	Attachment A(Definitions), pg A-1, Last Paragraph: Daily Discharge - Definition of composite sampling	Assigning a composite sample to the day in which the sampling ends is problematic in that it can create a non-representative sample that does not correspond well with the flow used for loading calculations. Normally, flow is measured from a continuous signal that is averaged over the 24 hour day from midnight to midnight. Also, where staff is available to change auto-samplers, it is usually done at midnight, so that the 24 hour composite sample will correspond to the 24 hour flow averaging. However, where the plant is not staffed at night, auto-samplers are usually changed at around 6:30 a.m. In this case, it would be more appropriate to assign the composite sample to the previous day for which almost the entire sample was taken – especially since the flow that occurred on the ending day was during low flow period. Also, whenever plant shutdowns occur (for maintenance or construction), it is normally scheduled during low flow periods. In this case, almost the entire sample could have been collected on the starting day, but assigned to the ending day. The Bureau would prefer to eliminate this language from the permit, and require the discharger to assign the sample to the day for which it is most flow-proportionately representative.		X	Regional Board staff disagree. "Daily Discharge" in Attachment A clearly defines as either "the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm)" or "any 24-hour period that reasonably represents a calendar day for purposes of sampling." The City of Los Angeles can collect the composite samples at 6:30 AM, as long as they are collected in the 24-hour period.	None necessary.
63.	Attachment A (Definitions) and throughout Tentative Order and Attachments:	The term RML is not defined in the permit, and is not necessary. It has the same meaning as RL, which is defined. The term RML should be eliminated throughout the permit.	X		Regional Board staff agree. All RMLs have been replaced by RLs.	Changes have been made.

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	Eliminate Terminology					
64.	Attachment E (MRP), pg E-1, MRP Heading on pg E-3 and various others: References to MRP and CI- 2171	The Bureau recommends that the first page of Attachment E should cite MRP No. CI-2171 to maintain consistency with other NPDES permits (i.e. change "MRP, CI-2171" should be changed to MRP No. CI-2171).		X	Regional Board staff disagree. It is the standard format used in recently adopted NPDES Permits.	None necessary.
65.	Attachment E (MRP), Section I.A., pg E-3: Set Sampling Times for Semi-annual and Annual Samples Reporting date	The MRP states: "Semiannual analyses and sampling shall be performed during the 1 <sup>st</sup> quarter (January, February, and March) and the 3rd quarter (July, August, and September). Annual analyses and sampling shall be performed during the 3rd quarter (July, August, and September). Should there be instances when monitoring could not be done during these specified months, the Discharger must notify the Regional Board, state the reason why monitoring could not be conducted, and obtain approval from the Executive Officer for an alternate schedule."  The Bureau is concerned that obtaining approval from the Executive Officer for an alternate schedule whenever monitoring could not be performed during the specified month for semiannual and annual analyses could create unnecessary delays with the monitoring program. Therefore, Bureau requests this provision be removed and would agree to note any deviation from the specified schedule in the quarterly and/or annual report. The bureau also request that specified months be stated as follows:  "January, February, and or March" and "July, August,"		x	Regional Board staff disagree. The City of Los Angeles has the 3-month period to prepare and conduct the monitoring events. Even if weather conditions do not allow the monitoring to be conducted in receiving water on a given day; the City may reschedule the sampling event during that 3-month period.  The 1 <sup>st</sup> quarter covers January, February, and March.	None necessary.
		and or September" and  Table 5 provides sufficient language regarding when the quarterly monitoring report is due.			The 2 <sup>nd</sup> quarter covers April, May, and June. The 3 <sup>rd</sup> quarter covers July, August, and September. The 4 <sup>th</sup> quarter covers October, November, and December.	necessary.
66.	Attachment E		Χ		Regional Board staff agree. The last sentence has	Changes

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	(MRP), Section I.A, pg E-3 and Attachment E (MRP), Section X.B.3, pg E-38, Table 5: Conflicts between Section I.A. on page E-3 and Table 5 on page E-38	"Results of quarterly, semiannual, and annual analyses shall be reported in the monthly monitoring report following the analysis." Table 5 (page E-38) provides specific due dates for the quarterly, semiannual, and annual data that are only correct if sampling and analyses are performed during the last month of the quarterly period specified Section I.A. (page E-3). The Bureau requests revision to the sentence in Section I.A. to "Results of quarterly, semiannual, and annual analyses shall be reported on or before the due dates specified in Table 5 on page E-38 of this document."		been revised as:  "Results of quarterly, semiannual, and annual analyses shall be reported in the monthly monitoring report following the analysis as due date specified in Table 5 of MRP."	have been made.
67.	Attachment E (MRP), Section I.A.f, pg E-4: Use of the term RML	Replace RML references with Reporting Limit (RL)	X	Regional Board staff agree. All RMLs have been replaced by RLs.	Changes have been made.
68.	Attachment E (MRP), Section I.A.d, pg E-4: Non- approved Methods	Provision I.A.d of the MRP states: "For any analyses performed for which no procedure is specified in the USEPA guidelines, or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report." Footnote 2 to Table 2 on page E-13 and Footnote 6 to Table 3 on page E-14 state: "Pollutants shall be analyzed using the analytical methods described in 40 CFR 136; where no methods are specified for a given pollutant [sic], by methods approved by this Regional Board or State Water Resources Control Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.  This provision and the footnotes are confusing and should be revised. First, with regard to the reference to "USEPA guidelines," we believe the Regional Board may have meant to reference the approved methods in 40 CFR Part 136. This would be consistent with Footnotes 2 and 6 in the MRP. However, with regard			

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		to the footnotes, the language regarding what to do in the absence of methods is unclear. We believe the language should clearly refer to the provisions in the SIP regarding use of MLs. We recommend that the following revisions be made to clarify what methods to use for monitoring and compliance:  Provision I.A.d of the MRP: "For any analyses	x		Regional Board staff agree to revise Section I.A.d. of	Some
		performed for which no procedure is specified in 40 CFR, Parts 136.3, 136.4, and 136.5the USEPA guidelines, or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report."			the MRP as:  "For any analyses performed for which no procedure is specified in 40 CFR, Parts 136.3, 136.4, and 136.5, the USEPA guidelines, or in the MRP,"	changes have been made.
		Footnote 2 to Table 2 on page E-13 and Footnote 6 to Table 3 on page E-14: "Pollutants shall be analyzed using the analytical methods described in 40 CFR 136; where no methods are specified for a given pollutant, the discharger and RWQCB shall agree on a method and lowest quantifiable limit to use as the RL—by methods approved by this Regional Board or State Water Resources Control Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Attachment 4 of the SIP, the analytical method with the lowest ML must be selected.		X	Regional Board staff disagree. The State Board also has the jurisdiction to approve analytical methods not described in 40 CFR 136.	None necessary.
69.	Attachment E (MRP), Section I.A.e, pg E-4: Non- approved Methods	The MRP states: "Each monitoring report must affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the California Department of Public Health or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this MRP." This provision is confusing and should be revised. First, with regard to the reference to "USEPA guidelines," we believe the Regional Board is referring to approved methods in 40 CFR Part 136. Second, the use of the term "approved" used in the same sentence				

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70	Allerthone	described in 40 CFR 136, each Each monitoring report must include an affirmation affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the California Department of Public Health." For pollutants where the method used for analysis has been authorized by the Executive Officer or his designee, the monitoring report must identify the pollutant and method used and in accordance with current USEPA guideline procedures or as specified in this MRP.	X		Regional Board staff agree to revise Section I.A.e. of the MRP as:  ""Each monitoring report must affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the California Department of Public Health, or using methods approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this MRP."	Some changes have been made.
70.	Attachment E (MRP), Section II.D.3, pg E-7, Paragraph 2: Special studies	According to this section, the need for special studies is to be determined based on the results of core or regional monitoring. Therefore, since these results may not indicate a special study is needed, please amend the second sentence in this paragraph as follows:  The Discharger, Regional Board and USEPA shall consult annually to determine the need for special studies. Based on the core or regional monitoring activities, Each each year, the Discharger shall may submit proposals for any proposed special studies to the Regional Board  In addition, please provide a description or the process of obtaining USEPA approval of a proposal for special study. The Bureau is not aware that USEPA can approve a proposal at a Regional Board hearing.		X	Regional Board staff disagree. This is the standard language adopted by this Regional Board in POTW's NPDES permits.	None necessary.
71.	Attachment E	On pages E-8 and E-13 the Influent monitoring		Χ	The CIWQS eSMR had been updated to match with	None

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	(MRP), Section III, pg E-8, Table 1 and Attachment E (MRP), Section IV.A.1, pg E-13, Table 2: Naming Convention for Monitoring Location	location is given as INF-001. In CIWQS eSRM, the Influent monitoring location is named M-INF. There should be a consistent naming convention between the permit and the CIWQS database. This should apply to all receiving water monitoring locations as well.			necessary.
72.	Attachment E (MRP), Section III, pg E-8, Table 1 and Attachment E (MRP), Section V.A, pg E-14, Table 3: Naming Convention for Monitoring Location	On pages E-8 and E-13 the Effluent monitoring location is given as EFF-001. In CIWQS eSRM, the Influent monitoring location is named M-001. There should be a consistent naming convention between the permit and the CIWQS database. This should apply to all receiving water monitoring locations as well.			None necessary.
73.	Attachment E (MRP), Section III, pg E-9, Table 1: Coordinates incorrect for HW33 under "Water Quality Monitoring Stations," "Microbiological Monitoring Stations," and "Acute Toxicity Sampling Stations"	HW33 listed under "Acute Toxicity Sampling Stations" does not match HW33 listed under "Water Quality Monitoring Stations" or "Microbiological Monitoring Stations" listed as 33° 43' 21.8" N and 118° 14' 33.4" W under "Acute Toxicity Sampling Stations", but as 33° 43' 19.6" N and 118° 14' 36.2" W under the other two. After verifying vessel and lab GPS coordinates, all HW33 station coordinates in this table should be 33° 43' 21.8" N and 118° 14' 36.2" W.			Changes have been made.
74.	Attachment E (MRP), Section III, pg E-10, Table 1: Coordinates incorrect for HT7	Coordinates should be 33° 43' 26" N and 118° 14' 41.2" W.			Changes have been made.
75.	Attachment E (MRP), Section III, pg E-10, Table	Coordinates should be 33° 42' 51.5" N and 118° 14' 36.3" W.	X		Changes have been made.

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	1: Coordinates incorrect for HT10				
76.	Attachment E (MRP), Section III, pg E-10, Table 1: Coordinates incorrect for HT12	Coordinates should be 33° 43' 14.8" N and 118° 14' 44.9" W.		Regional Board staff agree.	Changes have been made.
77.	Attachment E (MRP), Section III, pg E-10, Table 1: Coordinates incorrect for HT13	Coordinates should be 33°43' 2.3" N and 118°14' 4.2" W.		Regional Board staff agree.	Changes have been made.
78.	Page E-11, Figure E-2: Clarification	Map symbol of "square" listed as "daily", is referenced on page E-28, Table 4B as "5 times/week", rather than daily. Correct map and table to identical intended frequencies.	X	The City of Los Angeles provided Figure E-2 and shall provide the updated map of Figure E-2 (with JPEG format) to the Regional Board, which was received via the City's April 14, 2010 email!	Change has been made.
79.	Attachment E (MRP), Section V.A, pg E-14, Table 3 and Attachment E (MRP), Page E- 14, Footnote 7: Compliance Determination Requirement Unspecified for Total Chlorine Residual	On Page 20 of the Order, Table 7, the daily maximum limitation for total residual chlorine is given as 0.1 mg/L — with special conditions cited in Footnote 20. On Page E-14, Table 3, total residual chlorine is required to be monitored by continuous recorder. In the corresponding Footnote 7, it states "The continuous monitoring data are not intended to be used for compliance determination purposes." However, it does not say what is to be used for compliance determination. If it is required to be monitored by continuous recorder, but that continuous recorder is not to be used for compliance determination purposes, then what is to be used? It appears that the Footnote is incomplete.	X	Regional Board staff agree to fix the typo and to revise Footnote 7 as:  "Total residual chlorine shall be recorded continuously. The recorded data shall be maintained by the Permittee for at least five years. The Permittee shall extract the maximum daily peak, minimum daily peak, and average daily from the recorded media and shall be made available upon request of the Regional Board.—The continuous monitoring data are not intended to be used for compliance determination purposes."	Change has been made.
80.	Attachment E (MRP), Section V.A, pg E-14 to E- 16, Table 3: Column heading is confusing	The column heading at the far right of Table 3 is confusing. The last word "respectively" appears to be unnecessary. The terms "Minimum Level" and "Units" in parentheses seem out of place. Please revise table.		Regional Board staff agree to fix the typos	Changes have been made.
81.	Attachment E	This compound is a VOC and must be tested on a	X	Regional Board staff agree.	Change

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	(MRP), Section V.A, pg E-15, Table 3: Chlorodibromomet hane as 24-hour composite	grab sample; therefore, please change the sample type from composite to grab.				has been made.			
82.	Attachment E (MRP), pg E-15, Footnote 11: Appropriate Toxicity Equivalence Factors	The Bureau requests that bioaccumulation equivalence factors (BEFs) be added to the congener toxicity calculation in Attachment E of the Draft Permit. A BEF accounts for the bioavailability of each congener in relation to 2,3,7,8-TCDD much like a toxic equivalency factor (TEF) accounts for the toxicity of each congener in relation to 2,3,7,8-TCDD. The USEPA has employed both BEF and TEF in the equivalents calculation in the Great Lakes region for more than a decade. Region 2 in Order R2-2010-0054 adopted BEF and TEF calculations into their Basin Plan. Therefore, the Bureau requests that the calculation specifications be revised as follows:  In addition, the Discharger shall multiply each measured or estimated congener concentration by its respective TEF and BEF values and report the sum of these values.  In each instance of a Toxicity Equivalence Factor (TEF) calculation, the BEF for each congener should be added per the following table.		X	Regional Board staff disagree to add BEF to TCDD, because there is no reasonable potential for TCDD.	None necessary.			
83.	Attachment E (MRP), Section V.B, pg E-16: Chlorine concentration peak	The response time of one minute is not realistic and should be extended to five minutes as often times the sudden peaks are due to erratic readings of the chlorine analyzers due to lack of backwash. Furthermore, the excursion concentration does not take into account the dilution credit for residual chlorine, and should be altered to reflect the discharge limit of 6.2 mg/L and three times the discharge limit (i.e. 3 x 6.2 mg/L = 18.6 mg/L), where appropriate.		X	"Response to Comment" No. 17.	Changes have been made. None necessary.			
84.	Attachment E	Insert the word "renewal" in the sentence as follow:			Regional Board staff agree. "Renewal" has been	Change			

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	(MRP), Section VI.A.1.a, pg E-17: Missing word	The average survival in the undiluted effluent for any three (3) consecutive 96-hour static <u>renewal</u> or continuous flow bioassay tests shall be at least 90%			added.	has been made.
85.	Attachment E (MRP), Section VI.A.1.a, pg E-17 And Attachment E (MRP), Section VI.A.1.b, pg E-17: Dilution credit for acute toxicity	Although a dilution credit has been given to the chronic tests, no dilution credit has been given to the acute tests. The Bureau requests that a dilution credit for acute toxicity be applied.		X	1.4.2.2.A.(2) and (3) of the SIP, a mixing zone shall not cause acute toxic conditions to aquatic life passing through the mixing zone or restrict the passage of aquatic life. Therefore, no dilution credit for the acute toxicity can be granted to the TIWRP.	None necessary.
86.	Attachment E (MRP), Section III, pg E-12, Figure E- 4: Figure E-4 Station HB9 is incorrect	Upon inspection of the stations, there is a station labeled as "HB9." This was a previous name and should be changed to "HM9."	X		The City of Los Angeles provided Figure E-4 and shall provide the updated map of Figure E-4 (with JPEG format) to the Regional Board, which was received via the City's April 14, 2010 email!	Change have been made.
87.	Attachment E (MRP), Section VI.A.2.a, pg E-18, Paragraph 1: Grammatical error	Please revise as follow: The Discharger shall use marine vertebrate (Topsmelt, <i>Atherinops affinis</i> ) and a or marine invertebrate species (West Coast mysid, <i>Holmesimysis costata</i> )		X	Regional Board staff disagree. The Discharger shall use one marine vertebrate and one marine invertebrate to run acute toxicity test.	None necessary.
88.	Attachment E (MRP), Section VI.A.2.a, pg E-18, Paragraph 1: Marine Invertebrate not available	Change Holmesimysis to Americamysis bahia. Holmesimysis is not available for testing.		X	Regional Board staff agree. One additional sentence has been made at the end of Section VI.A.2.a. as:  "However, if <i>Holmesimysis costata</i> is not available, then East Coast Mysid, <i>Americamysis bahia</i> can be used for test species, because <i>Holmesimysis costata</i> may not be easily cultured, tested, or available from commercial sources."	Change has been made.
89.	Attachment E (MRP), Section VI.A.2.c, pg E-18, Last Paragraph: Incorrect Section number and reference to	Section VI.A.1.c at the bottom of page E-18 should be changed to Section VI.A.1.d.  In addition, it is not clear why this section refers to "receiving water acute toxicity requirements." The referenced requirements "in Section VI.A.1.a and VI.A.1.b" do not pertain to receiving water.	X	X	Regional Board staff agree to fix typo.	Change has been made. None necessary.

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	receiving water toxicity				
90.	Attachment E (MRP), Section VI.A.2.c.ii, pg E-18 and Attachment E (MRP), Section VI.B.2.b.ii, pg E-20: Use of word "ambiguity"	The word "ambiguity" in these sections should be replaced as follows:  If a different species is the most sensitive or if there is ambiguity uncertainty as to whether the same species is the most sensitive based on the test results, then the Discharger shall proceed with suites of screening tests	X	Regional Board staff agree.	Change has been made.
91.	Attachment E- Monitoring and Reporting Program, VI, B, 2.a, pg E-19: Chronic Toxicity Dilution	These dilutions do not reflect a dilution credit of 61. Trigger limits should be 1.6% TIWRP effluent or a TUc of 61. (Also, the test concentrations on the bottom of page E-19 (B. Chronic Toxicity Testing) are not appropriate for a dilution credit of 61.	X	TUc is 62 not 61. Regional Board staff delete Footnote 15 and revise VI.B.2. as:  "Test Methods and Test Species. The Discharger shall conduct the critical life stage chronic toxicity tests on 24-hour composite 60% for 100% for Eff-001 is 1.6% (100%/62) effluent."	Changes have been made.
92.	Attachment E (MRP), Section VI.B.2.b.i, pg E-20: Spelling error	Dentraster should be Dendraster	X	Regional Board staff agree to fix typo.	Change has been made.
93.	Attachment E (MRP), Section VI.B.2.b.i., pg E-20: The first screening under this monitoring	Under current permit, this screening was conducted in 2009. Since re-screening is required every 24 months (VI, B, 2.b.ii), we request the first screening under the new permit be required in 2011.	X	Regional Board staff agree to fix typo.	Change has been made.

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	Program should be conducted in 2010					
94.	Attachment E (MRP), Section VI.B.3.d, pg E-21: No exit for accelerated testing if TIE is initiated prior to completion of accelerated testing	Add to acute testing "If a TRE/TIE is initiated prior to completion of the accelerated testing schedule required, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer.		X	Regional Board staff disagree to add, because Section VI.E.4 of the MRP has the same language to cover acute and chronic TRE/TIE. Section VI.B.3.d. of the MRP is redundant and therefore deleted.	Change has been made.
95.	Attachment E (MRP), Section VI.E.6.b, pg E-23: Accelerated Test Trigger	Please change/revise as follow: If the results of any of the six accelerated tests exceeds 62 TUc trigger, the Discharger shall continue to monitor weekly until six consecutive weekly biweekly tests are in compliance.	X		Regional Board staff agree.	Change has been made.
96.	Attachment E (MRP), Section VIII, pg E-26, Paragraph 2; Clarify language	"In the event that a sampling station is temporarily or permanently obstructed due to construction activities for creating new habitat" Consider: "In the event that a sampling station is temporarily or permanently obstructed for reasons including, but not limited to, construction activities for creating new habitat"	X		Regional Board staff agree.	Change has been made.
97.	Attachment E (MRP), Section VIII, pg E-26, Paragraph 3: Clarify language	"The permittee shall report the locations (latitude and longitude) of any relocated stations to this Regional Board within 15 days of the effective date of this Order. All" Consider: "The permittee shall report the locations (latitude and longitude) of any relocated stations to this Regional Board within 15 days of the effective date of this Order or within 15 days after a station(s) become(s) obstructed	X		Regional Board staff agree.	Change has been made.
98.	Attachment E (MRP), Section VIII.A.1.a, pg E-27, Table 4A And Attachment E (MRP), pg E-27, Footnote 19: Clarify language	Footnote 19 specifies only bacteriological samples. It should either include "ammonia" or remove "bacteriological".	X		The ammonia shall be included in Footnote 19.	Change has been made.

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99.	Attachment E (MRP), pg E-27, Footnote 16: Consistent language	Footnote 16 specifies that parameters shall be measured for the "entire water column (from the surface within the first 0.5 m to 2 m above the seabed." To be consistent with first paragraph on page E-27, it should include, "2 m above the seabed, or as close to the bottom as practicable."	X		Regional Board staff agree.	Change has been made.				
100.	Attachment E (MRP), pg E-27, Footnote 18: Reference to L.V. Whitney	The Bureau could not find L.V. Whitney reference on internet. The Bureau assumes that our transmissivity measurements are similar to this 1938 publication. Please clarify.	X		Regional Board staff agree to revise Footnote 18 as:  "Light transmittance (transmissivity) shall be measured with a transmissometer, using equipment and procedure similar to that described by L.V. Whitney ["Transmission of Solar Energy and the Scattering Produced by Suspensoids in Lake Waters," Transactions of the Wisconsin Academy of Sciences, Arts, and Letters, Vol. 31 (1938)]. Results shall be expressed as the percent of light transmittance. Path length of transmissometer should be noted."	Change has been made.				
101.	Attachment E (MRP), pg E-28, Footnote 22: Monitoring station reference	Refers to station S2 which no longer exists. Please change S2 to current station name, CB-2.	Х		Regional Board staff agree to fix typo.	Change has been made.				
102.	Attachment (MRP), Section VII.A.2.b, pg E-28: Microbiological monitoring	The seven monitoring sample stations should be amended and shortened to reflect only those that represent and are adjacent the TIWRP's outfall 001 and receiving water.		X	Regional Board staff disagree. The seven monitoring sample stations located at the entire Harbor are used to monitor the possible/potential microbiological impacts from the discharge plume.	None necessary.				
	Attachment (MRP), Section VII.A.1.d, pg E-28: Water Quality Monitoring frequency	Please revise E-28 item 1.d to be consistent with frequency listed in Table 4A on page E-27 as follows:  monthly Quarterly "depth profiling shall be conducted at the harbor stations on the same day, if practical.	Х		Regional Board staff agree to fix typo.	Change has been made.				
104.	Attachment (MRP), pg E-31 Footnote 29: Benthic response index BRI	The footnote requires a single index that is still under development, when the entire multitude of analytical methods and indices are rightly left to the discretion of the analyst. Relaxing the BRI requirement would fall more in line with the pragmatic nature of science. The recent SMB BRI heat map exercise for the State-of-	Х		Regional Board staff agree to revise Footnote as "Community analysis of benthic infauna shall include number of species, number of individuals per species, total numerical abundance per station, benthic response index (BRI) and biological or other appropriate indices, plus utilize appropriate regression	Changes have been made.				

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		the-Bay and the BATMAN group, clearly demonstrates that the required utilization of an underdeveloped index is premature. The Bureau recommends that this index be deleted until it is fully developed. If and when it does meet these criteria, it should be an analytical option rather than a requirement.		analyses, parametric and nonparametric statistics, and multivariate techniques or other appropriate analytical techniques."	
105.	Attachment E (MRP), Section VIII.B.2.a, pg. E-31: Spelling error	"Water-Collumn" should be "Water-Column"	X	Regional Board staff agree to fix the typo.	Change has been made.
106.	Attachment E (MRP), Section VIII.B.2.a, pg E-31: Capitalization use	If "Benthic" is capitalized, then "trawl" should be capitalized		Regional Board staff agreed to fix the typo.	Change has been made.
107.	Attachment E (MRP), pg E-32, Footnote 31: Spelling errors and method definition	"Sjammpm-Wiener" should be "Shannon-Wiener", "Jacquard" should be "Jaccard", Cluster analyses should be classification analyses (as cluster analyses are just a subset of classification methods)	X	Regional Board staff agree to fix typos.	Changes have been made.
108.	Attachment E (MRP), Section VIII.C, pg E-33, Paragraph 1: Typo	"form shallow water" should probably be "from shallow water"	X	Regional Board staff agree to fix the typo.	Change has been made.
	Attachment E (MRP), Section VIII.C, pg E-33, Paragraph 1: Outfall Inspection	Due to shallow location and the turbid environment near the outfall, a detailed structural analysis using videotape and television may not be practical as there is no way to put a manmade submarine adjacent to the outfall. The language should read "TIWRP outfall need to be inspected every five years".		Regional Board staff agree to revise Outfall Monitoring language as:  " A detailed structural analysis of the pipes shall be conducted using underwater television/videotape and submarine visual inspection, where appropriate, to provide a comprehensive, report on the discharge pipe system form-from_shallow water"	Changes have been made.
110.	Attachment E (MRP), Section VIII.B.5.a, pg E-33: Incorrect footnote	Footnote 31 should be changed to 32. Since this item, specifically excludes white croaker, then "white croaker" should be replaced with "sport fish" in the footnote language.	X	Footnote 31 shall be replaced by a new Footnote 33, which is "The ten largest individuals of each fish species collected shall be analyzed. All sport fish shall be larger than 125 millimeters (standard length). Standard length, weight, and gonadal index shall be recorded."	Changes have been made.

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111.	Attachment E (MRP), Section X.B.4, pg E-38: Inconsistent terminology for RL, ML and RML	Sec. X.B.4 Reporting Protocols uses terminology that is inconsistent and conflicting within its own section, as well as the sections on compliance determination and definitions.  On Page A-4, the term "Reporting Level (RL)" is defined. The term RL is used appropriately on Page 44 and Page 47 of the Order, and on Page A-2 of Definitions.  In the first paragraph of Section X.B.4, it inappropriately uses the term "applicable reported Minimum Level (ML)." While the term "Minimum Level (ML)" is previously defined, the confusing term "applicable reported Minimum Level (ML)" is not defined.  This section on Reporting Protocols should either specify that the MDL and RL are to be reported, or that the MDL, RL and ML are to be reported if all three are necessary (these three terms are the appropriate terms defined in the Definitions). The RL has to be reported because it is the upper end of the DNQ range. The ML does not necessarily need to be reported unless it is desired that both ML and RL are to be reported unless it is desired that both ML and RL are to be reported whenever they are different. Note that CIWQS eSMR has fields for MDL, RL and ML.  Also note the use of these terms on Page 36 of the Order and Page E-4 of the M&RP, which should be modified consistently with changes made to this		ated April 9, 2010  Regional Board staff agree to fix typos.	Changes have been made.
		section.  In Section X.B.4.a, the term "reported ML" should be replaced with simply "RL" to be consistent with the definitions in this permit.  In Section X.B.4.b, the term "RL" is used appropriately,			

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		in contrast to the previous paragraph that inappropriately uses "reported ML" in reference to the same parameter.						
112.	Attachment E (MRP), Section X.B.4.b, pg E-38, Paragraph 2: Reporting requirement		X		Regional Board staff agree.	Change has been made.		
113.	Attachment E (MRP), Section X.C.3, pg E-40: Typo?	"All charge monitoring results" should probably be: "All discharge monitoring results"	X		Regional Board staff agree to fix the typo.	Change has been made.		
114.	Attachment F (Fact Sheet), Section I, pg F-3, Table 1: Name of Plant	The name of the Plant should be: Terminal Island Water Reclamation Plant	Х		Regional Board staff agree.	Changes have been made.		
115.	Attachment F (Fact Sheet), Section I, pg F-3, Table 1: Authorized person	The authorized person to sign and submit reports should be the Plant Manager.	X		Regional Board staff agree.	Changes have been made.		
116.	Attachment F (Fact Sheet), Section II.A.2.a, pg F-5-6: AWTF	The last sentence should be changed to note that MF water is sent to the RO, not used for irrigation or recreational uses.	Х		Regional Board staff agree. The last sentence has been removed.	Change has been made.		
117.	Attachment F (Fact Sheet), Section II.A.2.b., pg F-6: Redundant	The third and fourth sentences of this Section, "Harbor Water Recycling Project (HWRP) – Dominguez Gap Barrier Project (Order No. R4-2003-0134), adopted on October 2, 2003, was permitted to inject up to 5 <sup>4</sup> mgd	Х		Regional Board staff agree to revise this Section as:  "The microfiltration filtrate is fed into two separate RO process trains. Each RO process train has two	Change has been made.		

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	sentence	recycled water to Dominguez Gap Barrier (Barrier) to prevent seawater intrusion. The RO water is injected into the Dominguez Gap Barrier to control seawater intrusion" make the same statement regarding injection of RO water to control seawater intrusion; therefore, the fourth sentence of the Section can be deleted.		stages in series and use thin-filmed membranes. The RO water is chlorinated prior to being transported for two projects under separate Water Recycling Requirements. contained in Order No. R4-2003-0134, adopted on October 2, 2003. The Harbor Water Recycling Project (HWRP) – Dominguez Gap Barrier Project (Order No. R4-2003-0134), adopted on October 2, 2003, was permitted to"	
118.	Attachment F (Fact Sheet), Section II.A.2.b, pg F-6: AWTF	Remove period in third sentence.  Note that RO water is not used for irrigation at this time, although permitted by LADWP.		See "Response to Comment" No. 117.  In addition, even RO water is not used for irrigation at this time, the way of statement in Section II.A.2.b states a fact.	None necessary.
119.	Attachment F (Fact Sheet), pg F-6, Footnote 4: AWTF Phasing	Remove footnote 4. See comment #3.		See "Response to comment" No. 2. Footnote 4 shall stay, because it is based on the Regional Board Resolution No. 94-009 and the Harbor Water Recycling Project Order No. R4-2003-0134 adopted by the Regional Board on October 2, 2003.	None necessary.
	Attachment F (Fact Sheet), Section II.C.1, pg F-8-13, Table 2 and Attachment F (Fact Sheet), Section IV.C, pg F-35-39, Table 7: Maximum Effluent Concentration (MEC of Cyanide)	MEC of cyanide should be <4 ug/L and not <0.004 ug/L.		Regional Board staff agree to fix the typos.	Changes have been made.
	Attachment F (Fact Sheet), Section III.C.1.b, pg F-17: Misuse of the word "Chrematistic"	"Chrematistic" is used in place of "Characteristic" in the title of Resolution No. 2004-022.		Regional Board staff agree to fix the typo.	Change has been made.
122.	Attachment F (Fact Sheet), Section III.C.1, pg F-17:	These paragraphs in the permit and Fact Sheet refer to "proposed" ammonia objectives, which have already been approved by the Regional Board. Please correct	X	Regional Board staff agree to correct "proposed ammonia objectives" as "adopted ammonia objectives".	Changes have been made.

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	Ammonia Objectives	the language in these Paragraphs to acknowledge the objectives have been adopted and eliminate the "proposed" status of the objectives.			
123.	Attachment F (Fact Sheet), Section III.E.1, pg F-21: Source of Drinking Water Policy	Remove, this is not drinking water nor is MUN an objective.	X	See "Response to Comment" No. 61.	Changes have been made.
124.	Attachment F (Fact Sheet), Section IV.B.2, pg F-24: Technology-based effluent limitations	The permit states: "The technology-based effluent limitations consist of restrictions on Biochemical Oxygen Demand (BOD5), Total Suspended Solids (TSS), and pH. Restrictions on BOD5, TSS, and pH are discussed in the Fact Sheet."		See "Response to Comments" No. 12.	
		"Specifically, this Order includes effluent limitations for BOD and TSS that are more stringent than applicable federal standards, but that are nonetheless necessary to meet numeric objectives or protect beneficial uses. The rationale for including these limitations is explained in Section IV.B. of the Fact Sheet."			
		The Fact Sheet states: "However, all technology-based effluent limitations from the previous Order No. R4-2005-0024 are based on tertiary-treated wastewater treatment standards. These effluent limitations have been carried over from the previous Order to avoid backsliding."			
		The Regional Board's proposed reasons for maintaining technology-based limits based on tertiary-treated wastewater treatment standards is misplaced. As clearly stated by the State Water Resources Control Board in a recent water quality order, "[t]ertiary treatment is not specifically required for POTWs by federal law, but may be a reasonable requirement where the treatment is necessary to achieve compliance with water quality standards." (See In the Matter of the Petitions of City of Stockton, et al., Order			

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		WQ 2009-0012 at p. 7.) The State Water Board further stated that while the regional board has discretion to include other requirements to ensure proper facility operation, "there is no legal requirement to adopt technology-based effluent limitations for tertiary treatment."			
		In its decision, the State Water Board upheld the Central Valley Water Board's action to remove effluent limitations for oil and grease and turbidity. In its support of the Central Valley Water Board, the State Water Board found that oil and grease are not part of the federal technology-based requirements and removal of such limitations here was appropriate because there was no longer reasonable potential. Thus, where there is no longer reasonable potential, the Regional Board does not need to maintain previous met limits claiming that it is necessary to do so to avoid backsliding.			
		Further, in the permit in question, the Central Valley Water Board removed the turbidity effluent limitations and alternatively added provisions to the operational section of the permit for turbidity. The State Water Board upheld this change stating that "[t]he turbidity limitations in this Permit are not water quality based effluent limitations[] [and] [t]he Central Valley Water Board properly exercised its discretion in labeling these requirements as 'Special Provisions' rather than effluent limitations." (Order No. 2009-0012 at p. 8.)  In light of the State Water Board's findings in WQO Order No. 2009-0012, the Bureau requests removal of			
		the oil and grease limitation because there is no reasonable potential, and respectfully requests removal of the turbidity effluent limitations. At most, the turbidity provisions should be in the operational section of the permit.			

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125.	Sheet), Section IV.A, pg F-24: Discharge prohibition	Amend the last sentence as follow "This order authorizes the discharge of tertiary-treated wastewater and brine discharge from discharge point 001"			Regional Board staff agree to revise it as:  "This order authorizes the discharge of tertiary-treated wastewater <u>and brine waste</u> from Discharge Point 001 only."	Change has been made.
126.	Attachment F (Fact Sheet), Section IV.C.2.ii, pg F-27: Incorrect reason stated for why natural waters are slightly basic	This paragraph asserts that the reason "the pH of natural waters is usually slightly basic [is] due to the solubility of carbon dioxide in the atmosphere." This is not correct. The pH of natural waters is actually slightly basic due to carbonate in the water. Carbon dioxide in water makes the pH more acidic.	X		Regional Board staff agree to revise the statement as:  "While the pH of "pure" water at 25 °C is 7.0, the pH of natural waters is usually slightly basic acidic due to the solubility of carbon dioxide from the atmosphere."	Changes have been made.
127.	Attachment F (Fact Sheet), Section IV.C.2.vi, pg F-29; MBAS	The Bureau appreciates the application of the dilution ratio in the effluent limitation for MBAS. However, we fail to see how the rationale explaining the basis for the Title 22-based limit (0.5 mg/L) supports application of the limit in a manner consistent with the Basin Plan and EPA's Water Quality Standard Regulation. According to the Fact Sheet:  "The existing permit effluent limitation of 0.5 mg/L for MBAS was developed based on the Basin Plan incorporation of Title 22, Drinking Water Standards, by reference, to protect the surface water MUN beneficial use. Given the nature of the facility which accepts domestic wastewater into the sewer system and treatment plant, and the characteristics of the wastes discharged, the discharge has reasonable potential to exceed both the numeric MBAS water quality objective (WQO) and the narrative WQO for the prohibition of floating material such as foams and scum. Therefore an effluent limitation is required." (Fact Sheet, Sec. C.2.vi).  This rationale is inconsistent with EPA's Water Quality Standards Regulation at 40 CFR Part 131, which defines the term "Criteria" as:		X	Regional Board staff revise Section IV.C.2.vi. of the Fact Sheet and disagree to delete the numeric limitation of MBAS. The MBAS procedure tests for the presence of anionic surfactants (detergents) in surface waters. Surfactants disturb the water surface tension, which affects insects and can affect gills in aquatic life. The MBAS can also impart an unpleasant soapy taste to water, as well as cause scum and foaming in waters, which impact the aesthetic quality of surface waters. In addition, surface waters shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use, based on the Basin Plan.	Changes have been made.

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		Elements of State water quality standards, expressed		<u>u</u>	100 7 p. 11 0; 20 10	
		as constituent concentrations, levels, or narrative statements, representing a quality of water that supports a particular use. When criteria are met, water quality will generally protect the designated use." (40 CFR Part 131.3(b)) (emphasis added).				
		This approach is reiterated in EPA's definition of Water Quality Standards, which "consist of a designated use or usesand water quality criteria for such waters based upon such uses." (40 CFR Part 131.3(i)). More importantly, the Region 4 Basin Plan embraces this bifurcated approach to addressing water quality. Citing the Water Code, it provides that water quality objectives are "'the allowable limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water" Hence, the Basin Plan objective for MBAS is specifically provided for "waters designated"				
		MUN."  In addition, the Bureau fails to see how citing the affects that MBAS may have on water surface tension and aquatic life has anything to do with application of the Title 22 limit. The permit provides no information supporting use of the Title 22 limit for MBAS as necessary for the protection of aquatic life. See pgs F-29 and Footnote 8 on pg E-15.				
		The Bureau requests that references to the protection of aquatic life be removed from the Tentative Order absent information supporting the Title 22 limit for the protection of aquatic life.				
128.	Attachment F (Fact Sheet), Section IV.C.2.vi, page F- 29: Secondary MCL for MBAS	This is not drinking water and a secondary MCL is not appropriate, nor is the Harbor a source of drinking water		X	See "Response to Comment" No. 127.	Changes have been made.

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129.	Attachment F (Fact Sheet), Section IV.C.2.vii, page F- 30: Incorrect assertion	States at top of page that there is groundwater recharge in this area. Statement is incorrect as described on page F-51, Section D.2. Salt water intrusion into the barrier is not recharge.	X	Regional Board staff agree to remove it and revise Section IV.C.2.vii as:  "Additional impacts can also occur as the oxidation of ammonia lowers the dissolved oxyger content of the water, further stressing aquatic organisms. Oxidation of ammonia to nitrate may lead to groundwater impacts in areas of recharge. There is groundwater recharge in these reaches. Ammonia also combines with chlorine"	have been made.
130.	Attachment F (Fact Sheet), Section IV.C.2.b.vii, pg F- 30: Ammonia Objectives	These paragraphs in the permit and Fact Sheet refer to "proposed" ammonia objectives, which have been already been approved by the Regional Board. Please correct the language in these paragraphs to acknowledge the objectives have been adopted and eliminate the "proposed" status of the objectives.	X	Regional Board staff agree to correct "proposed ammonia objectives" as "ammonia objectives".	Changes have been made.
131.	Attachment F (Fact Sheet), Section IV.C.2.xi, pg F-33: Radioactivity	The Fact Sheet states: "Radioactive substances are generally present in natural waters in extremely low concentrations. Mining or industrial activities increase the amount of radioactive substances in waters to levels that are harmful to aquatic life, wildlife, or humans. Regional Board staff used Best Professional Judgments to establish radioactivity limits for the effluent using Maximum Contaminant Levels (MCLs) for the drinking water specified in Title 22, Chapter 15, Article 5, Sections 64442 and 64443, of the California Code of Regulations, or subsequent revisions."		Regional Board staff add the statement in the end of Section IV.C.2.b.x. of Fact Sheet as:  "However, radioactive substances were not detected in the TIWRP effluent and thus there was no reasonable potential to establish effluent limitations for Gross alpha, Gross beta, Radium 226 & 228, Tritium, Strontium, and Uranium in the permit. This relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations."	have been made.
132.	Attachment F (Fact Sheet), Section IV.C.2.xii, page F- 33: Temperature	Revise and restate to justify 100 degree F effluent temperature.	>	Regional Board staff disagree. See "Response to Comment" No. 22.	More rationales have been made.
133.	Attachment F (Fact Sheet), Section IV.C.2.x, page F- 33: Turbidity	The permit states: "For the protection of the water contact recreation beneficial use, the wastes discharged to water courses shall have received adequate treatment, so that the turbidity of the wastewater does not exceed any of the following: (a) an average of 2 Nephelometric turbidity units (NTUs) within a 24-hour period; (b) 5 NTUs more than 5	>	Regional Board staff disagree. The statement of turbidity specified in Section IV.A.2.c. is not only technology-based but water quality-based. It has recently been adopted by this Regional Board for al POTW Permits. Also see "Response to Comment" No. 12.	

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		percent of the time (72 minutes) within a 24-hour period; and (c) 10 NTU at any time." The Fact Sheet states: " is based on the Basin Plan (page 3-17) and Section 60301.320 of Title 22, Chapter 3, "Filtered Wastewater" of the California Code of Regulations."				
		Turbidity limitations are not necessary to ensure compliance with water quality standards but instead ensure that tertiary treatment facilities are operating properly. Because such limitations are not water quality based, the Regional Board maintains the discretion to label these requirements as "Special Provisions" rather than effluent limitations. This approach has been upheld by the State Water Board as an appropriate use of the Regional Board's discretion. (See Order No. 2009-0012 at p. 8.) In light of the State Water Board's findings, the Bureau recommends that the tentative permit be amended to remove the effluent limitations for turbidity. Instead, turbidity provisions should be included in section VI.C.4 of the permit on or about page 37.		X	Regional Board staff disagree. Also see "Response to Comment" No. 12.	None necessary.
134.	Attachment F (Fact Sheet), Section IV.C.4.d, pg F-42 And Attachment F (Fact Sheet), Section IV.C.4.e, pg F-42: Subsections i., ii, iii, iv are misplaced	Subsections IV.C.4.e.i, ii, iii, and iv do not pertain to mass-based limits, which is the subject of Section IV.C.4.d and move up.	X		Regional Board staff agree.	Typos have been fixed.
	Attachment F (Fact Sheet), Section IV.E.2, pg F-47: Elimination of Discharge to Los Angeles Harbor via Water Recycling Attachment F (Fact	The Bureau requests the removal of Section IV.E.2. The plant no longer receives 22.5 MGD of average daily flow. Current daily average plant flow is 15 MGD. Future reclaimed water usage is based upon demand and economic feasibility and should not be based upon a fixed schedule.  The information in the Fact Sheet is inaccurate as	X	X	See "Response to Comments" No. 2.  Groundwater limitations specified in Section V.B. are	None necessary.

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	Sheet), Section V.B, pg F-47-48, Paragraph 2: Groundwater Limitations	there are no groundwater uses impacted by the discharge. Table 6 (Basin Plan Beneficial Uses — Surface Waters) on page 12 of the tentative permit lists the receiving water uses impacted by the discharge and they only consist of surface water units for the harbor [Outer Harbor (Hydro. Unit No. 405.12); Marinas (Hydro. Unit No. 405.12); Public Beach Area (Hydro. Unit No. 405.12); All Other Inner Areas (Hydro. Unit No. 405.12); and Dominguez Channel Estuary (Hydro. Unit No. 405.12); Los Angeles River Estuary (Hydro. Unit No. 405.12)]. No groundwater uses are listed as receiving waters for this discharge since it explicitly is conveyed to the harbor. The "proximity" of the TIWRP discharge to the San Gabriel River is irrelevant for the purposes of establishing receiving water limitations, and thus the discussion of reasonable potential to protect a non-existent use is also immaterial.  For these reasons, the Bureau recommends that the Fact Sheet be revised as follows:  Limitations in this Order must protect not only surface receiving water beneficial uses, but also, the beneficial uses of underlying groundwater where there is a recharge beneficial use of the surface water. For this discharge, there are no impacts to groundwater, and thus effluent limitations are not warranted. In addition to a discharge to surface water, there is discharge that ean impact groundwater. Sections of the San Gabriel River, near TITP discharge points, are designated as GWR beneficial use. Surface water from the San Gabriel River percelates into the Main San Gabriel Valley and the Central Los Angeles Coastal Plain Groundwater Basins. Since groundwater from these Basins is used to provide drinking water to the protected.		T	not subject to the TIWRP, therefore, the entire Section V.B. is changed to "Not applicable."	have been made.

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137.	Attachment F (Fact	However, results of reasonable potential analysis for priority pollutants and nonpriority pollutants indicate that there is no reasonable potential to exceed the groundwater criteria. Therefore, effluent limitations for these constituents are not warranted.  Twenty-six constituent monitoring frequencies were		X	Although the monitoring data for antimony, arsenic,	New
	Sheet), Section VI.B, pg F-49-50, Table 10: Monitoring frequency	adjusted (when comparing the 2005 NPDES permit to 2010 Tentative Order). Of the 26 constituents, 20 of the frequencies were increased two fold (from semi-annual to quarterly), and 6 of the frequencies were decreased. The six constituents with decreased monitoring frequencies seem justifiable as the 2005 NPDES permit contained effluent limitations for these constituents, while the 2010 Tentative Order does not.  The Bureau requests that the monitoring frequency for the following 20 constituents be revised to reflect the current monitoring frequencies: antimony, arsenic, beryllium, cadmium, chromium (VI & total), selenium, thallium, zinc, bromoform, chlorodibromomethane, chloroform, dichlorobromomethane, ethylbenzene, methylene chloride, tetrachloroethylene, toluene, trichloroethylene, 2,4,6-trichlorophenol, dibenzo(a,h)anthracene, indeno(1,2,3-cd) and pyrene.			beryllium, cadmium, chromium (VI & total), selenium, thallium, zinc, bromoform, chlorodibromomethane, chloroform, dichlorobromomethane, ethylbenzene, methylene chloride, tetrachloroethylene, toluene, trichloroethylene, 2,4,6-trichlorophenol, dibenzo(a,h)anthracene, indeno(1,2,3-cd), and pyrene indicate that the discharge does not demonstrate reasonable potential to exceed water quality standards, the monitoring data for these pollutants show detected. Therefore, the increase in monitoring frequency for these pollutants is warranted. The reduction of monitoring frequency for lead, mercury, nickel, silver, cyanide, and bis(2-ethylhexyl)phthalate is warranted because the monitoring data for these pollutants indicate that the discharge does not demonstrate reasonable potential to exceed water quality standards. New Footnotes have been added with Table 9 of Fact sheet.	Footnotes have been added.
138.	Sheet), Section VI.D, pg F-51 and Attachment F (Fact Sheet), Section VI.E, pg F-51-52: Receiving Water Monitoring and Watershed Monitoring	Again refers incorrectly to the San Gabriel River Watershed monitoring, which not close to TIWRP outfall or the Harbor or in the vicinity of TIWRP Outfall. The Bureau requests that any reference to San Gabriel River related monitoring be removed.			Regional Board staff agree. Sections VI.D. and VI.E. of Fact Sheet shall be deleted, because these monitoring requirements are cover by the additional Bight program.	Typos have been fixed.
139.	Attachment F (Fact Sheet), Section	40 CFR Part 123 deals with state program requirements and authorities that the state must have	X		Regional Board staff agree to revise Section VII.B.1. of the Fact sheet as:	Changes have been

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	VII.B.1, pg F-52: Special Reopener Provisions	in place to issue permits. Thus, this is not the correct part of the federal regulations to cite for permit modifications; nor does it address permit reissuance or revocations, which are also included in the tentative permit in the reopener provisions section. It should instead refer to 40 CFR Parts 122.44(b)(1), 122.44(d)(1)(vi)(C)(4),122.62, 40 CFR 122.63, and 40 CFR 124.5(c). These sections specifically address permit modifications, revocations, and reissuance and the conditions under which such actions can occur. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. If a permit modification satisfies the criteria in §122.63 for "minor modifications" the permit may be modified without a draft permit or public review. Otherwise, a draft permit must be prepared and other state permitting procedures followed. For these reasons, we recommend that this provision in the Fact Sheet be revised as follows:		"This provision is based on 40 CFR Parts 122.44(b)(1), 122.44(d)(1)(vi)(C)(4),122.62, 122.63, and 124.5123. The Regional Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new regulations, modification in sludge use or disposal practices, or adoption of new regulations by the State Board or Regional Board, including revisions to the Basin Plan."	made.
140.	Attachment F (Fact Sheet), Section VII.B.2.c, pg F-53: Editorials: Editorials	This provision is based on 40 CFR Parts 122.44(b)(1), 122.44(d)(1)(vi)(C)(4),122.62, 122.63, and 124.5-123. The Regional Board may reopen the permit to-modify, reissue, or revoke permits in accordance with federal regulations. For permit modifications, only the conditions subject to modification are to be reopened. conditions and requirements. Causes for modifications include the promulgation of new regulations, modification in sludge use or disposal practices, or adoption of new regulations by the State Board or Regional Board, including revisions to the Basin Plan. Change "base" to "based" in the first sentence. In the second sentence change "increase" to "increased".	X	Regional Board staff agree.	Typos have been fixed.

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141.	Attachment F (Fact Sheet), Section VII.B.2.f, pg F-53: Clarification	Please revise the language as follows:delineate concurrently measure salir temperature, and ammonia	nity, pH,	Regional Board staff agree.	Changes have been made.		

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1.	WQBEL should not be removed, and Monitoring frequency should not be reduced	We support Staff's use of Best Professional Judgment (BPJ) to increase monitoring frequencies of constituents that were detected in historic monitoring data. An increase in monitoring for contaminants found above detection levels, including antimony, arsenic, beryllium, cadmium, chromium, selenium, and numerous other priority pollutants will enable staff to better evaluate if these contaminants pose a threat to water quality. This is a step in the right direction in comparison to other permits we have recently reviewed which merely reduce monitoring frequencies and remove WQBELs due to the results of an RPA. However, some WQBELs have been removed in the Permit and monitoring frequencies of numerous constituents have been reduced as a result of the RPA approach. As we have commented many times in the past, this approach is bad public policy for several reasons. The RPA approach never strengthens a permit. In fact, the RPA approach typically greatly reduces the number of WQBELs and the monitoring frequencies of constituents in an NPDES permit. For instance in the Tentative Permit, WQBELs have been removed and monitoring frequencies have been reduced from monthly to quarterly monitoring for lead, mercury, silver, nickel, bis(2-ethylhexl)phthalate, and cyanide. This is an additional cause for concern, as	x	The monitoring frequency for lead, mercury, silver, nickel, bis(2-ethylhexl)phthalate, and cyanide was reduced from monthly to quarterly because the effluent limitations were removed, since these pollutants did not have reasonable potential. This procedure has been used in adopted POTW Permits by this Regional Board. Here are criteria used do determine pollutants' monitoring frequency in this MRP:	None necessary.

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		the Los Angeles Harbor and neighboring waters have numerous impairments including lead, mercury, and sediment toxicity. We believe Staff should, at a minimum, maintain monitoring for these constituents to ensure that the TITP is not of source of these contaminants.			<ul> <li>a. For pollutants with effluent limitations in the 2008 permit have RP to exceed water quality objectives (WQO) in which, the current monitoring data indicate that the discharge does not demonstrate RP to exceed WQO, then a reduction of the monitoring frequency for this pollutant is warranted.</li> <li>b. For pollutants with effluent limitations in the 2008 permit have RP to exceed WQO in which, the current monitoring data indicate that the discharge continues to demonstrate RP to exceed WQO, then the monitoring frequency for these pollutants stays the same.</li> <li>c. For pollutants without effluent limitations in the 2008 permit have no RP to exceed WQO in which, the current monitoring data indicate that the discharge continues to demonstrate no RP to exceed WQO, but some or all of the monitoring data for these pollutants were detected, then an increase of monitoring frequency for these pollutants is warranted.</li> <li>d. For pollutants without effluent limitations in the 2008 permit have no RP to exceed WQO in which, the current monitoring data indicate that the discharge continues to demonstrate no RP to exceed WQO, and all of the monitoring data for these pollutants were non-detected, then the monitoring frequency for these pollutants in the proposed MRP stays the same.</li> </ul>	
		While we understand the need for adapting permits to account for changes that occur between permit cycles, we also see that the current practice of the RPA approach favors dropping constituents and weakening the monitoring programs from the current permits, creating progressively less protective permits with every permitting cycle. We believe that staff should use BPJ to maintain effluent limitations and also maintain monitoring frequencies.		X	The removal of effluent limitations, for constituents that no longer show reasonable potential, is consistent with the State Board's Precedential Order WQO 2003-0009. Effluent limitations for radioactivity, lead, mercury, nickel, silver, cyanide, bis(2-ethylhexyl)phthalate, and dieldrin are removed since these constituents no longer have reasonable potential, as required by State Board Order WQO 2003-0009.	None necessary.

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		Letter from Heal the Bay o	date	ed	April 9, 2010	
		The RPA approach should not grant dischargers "free exceedances" of the priority pollutants and other constituents without a risk of enforcement. Further, including additional WQBELs in the Tentative Permits would provide no additional burden to the Permittee, as they would only need to maintain current wastewater performance. Even if the Permittee does not have a problem meeting the remaining effluent limits, the Regional Board should include these limits in the Permit as a safety net to ensure that objectives are met in the future. This is particularly important because this permit lacks a hard toxicity limit, which would have provided a safety net capturing potential impacts from the synergistic effects of low concentration of multiple contaminants and impacts of contaminants that are not given limitations in this permit.		×	Regional Board staff follow the regulations of State Board Order WQO 2003-0009.	None necessary.
2.	Dilution credit should not be granted	The Tentative Permit proposes a dilution credit of 61 for numerous effluent limitations including chronic toxicity, ammonia, MBAS, copper, lead, mercury, and silver. In other words, this dilution credit allows for an increase in the amount of pollution discharged by a factor of 61 in comparison to the current permit's limits. This is of particular concern given that, as mentioned in the Tentative Permit, the Los Angeles/Long Beach Outer Harbor is impaired by an unknown source of sediment toxicity and there are other listings for toxics and metals in the area. It is confusing that the dilution credit is being added for lead, mercury, and silver given that effluent limitations for these substances have been dropped from the current permit. Please provide some clarification on this point. Further given that Terminal Island discharges into a shallow enclosed bay, how does the Regional Board justify applying dilution credits to these additional constituents? Also, what is the need for applying these dilution credits if monitoring performed since the last		X	On May 28, 2004, the Regional Board received the City of Los Angeles' final report of the Mixing Zone and Dilution Credit Study (Study). On September 3, 2004, the State Board partially approved the Study and granted the dilution credit of 61 (the most stringent) to the Terminal Island Water Reclamation Plant (TIWRP) for its discharge to the Los Angeles Outer Harbor. In addition, pursuant to Section 1.4.2.1 of the State Implementation Plan (SIP), "Dilution credits may be limited or denied on a pollutant-by-pollutant basis, which may result is in a dilution credit for all, some, or no priority pollutants in discharge", MBAS, total ammonia, copper, and chronic toxicity trigger are granted the dilution credit of 61 based on the City of Los Angeles' special study conducted for these constituents. In the tentative Order and the revised tentative Order, the dilution credit of 61 has not been granted to lead, mercury, and silver, which are the effluent limitations in the active Order No. R4-2002-0082, adopted by this Regional Board on October 2,	None necessary.

No.	Issue	Comment	Agree	Disagree	Response to Comment	Action Taken
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		Letter from Heal the Bay	da	ted	• •	
		permit was issued shows that constituents exceeding CTR values in the past are now detected below these standards?			2008.	
		As you know, the State Water Resources Control Board's Enclosed Bays and Estuaries Policy requires POTW discharge to cease at the earliest practicable date. As mentioned in the Permit Findings on page 6, over 30 years ago the Regional Board required the City to cease the TITP discharge to the harbor at the earliest practicable date or demonstrate that the discharge enhances the quality of the receiving water. Since the City was not successful in demonstrating that the discharge enhances the water quality in the Harbor, the treatment plant discharge is already in the process of being phased out. Thus it is not protective of water quality to allow an increase in the amount of contamination the TITP is allowed to contribute to the Harbor.		×	On June 27, 1977, this Regional Board issued Order No. 77-113 requiring the City of Los Angeles to phase out the TIWRP discharge to the Harbor at the earliest practicable date or demonstrate that the discharge enhances the quality of the receiving water. The City of Los Angeles opted for the latter approach but was not successful in demonstrating that the TIWRP effluent enhances the water quality in the Harbor. On November 25, 1985, this Regional Board issued Order No 85-77, requiring the City of Los Angeles to cease the TIWRP discharge to the Harbor at the earliest practicable date. Additionally, on October 31, 1994, the Regional Board issued the Resolution No. 94-009 to approve the proposal by the City of Los Angeles to ultimately phase out the discharge of tertiary-treated wastewater effluent from the TIWRP into the Harbor by 2020 through implementation of a Water Recycling Program covering two separate projects. Finding 10 of Resolution No. 94-009 states:	None necessary.
					"The proposed discharge of tertiary-treated effluent, brine waste from the reverse osmosis system, or a combination of tertiary effluent plus brine wastes, will not adversely impact water quality in Los Angeles Harbor."	
					The above statement is based on "Staff Report Terminal Island Treatment Plant", which states:  "No adverse water quality impacts would be expected under this alternative, due to a combination of improved effluent quality produced by tertiary treatment, reduction in effluent volume discharged through water reuse, relocation of the	

No.	Issue	Comment	Disacre	Response to Comment	Action Taken
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		Letter from Heal the Bay	date	d April 9, 2010	
				outfall into an area of the Outer Harbor with bett water circulation and improved initial dilution produced by new diffuser system."	
				In the section of STAFF RECOMMENDATION wir "Staff Report Terminal Island Treatment Plant", states:	
				"Staff believes that the water reclamatical alternative represents the best option to comp with the discharge prohibition contained Regional Board Order No. 85-77. The propose project meets the intent of the State of California Enclosed Bays and Estuaries Policy (1974) ar Water Reclamation Policy (1977) by phasing of the discharge of wastewater to the harbor while permitting and encouraging reuse of the effluent The proposed discharge would meet all effluent limitations except possibly when the Citapproaches 100% water reuse. The City has committed to identifying and implementing additional treatment or control measures as necessary to ensure that all effluent limitation would be met by the time that 100% reuse could be achieved."	y n d d s d t t e t t y s g s s s
				Again, based on Regional Board Resolution No. 94 009, the City of Los Angeles' TIWRP is allowed discharge tertiary-treated wastewater and brine was into the Los Angeles Harbor.	o e
3.	Support of re- opener on toxicity	We support the reopener language Staff included in this Permit to ensure that the Permit can be updated in a timely fashion to reflect the State Board's Toxicity Policy. Specifically, Section C.h. mentions "This order may be reopened and modified to revise the chronic toxicity effluent limitation, to the extent necessary, to be consistent with State Board precedential decisions, new policies, new laws, or new regulations." (Draft		Comment noted.	None necessary.

No.	Issue	Comment	Agree	Diegara	Response to Comment	Action Taken
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		Letter from Heal the Bay	date	ed	April 9, 2010	
4.	WQBELs for radioactivity are missing	Permit page 32). Although we are disappointed that this Permit includes a weak chronic toxicity trigger, we understand that the State Board is set to release a draft Toxicity Policy in May based on comments made in a State Board update given at the April 1, 2010 Regional Board hearing. We hope this limit is incorporated soon after the adoption of the policy.  There appears to be a discrepancy between the effluent limits mentioned in the Tentative Fact Sheet and those mentioned in the Tentative Permit. When comparing the two documents, the Tentative Fact Sheet is missing WQBELs for radioactivity, gross alpha, gross beta, radium 226 & 228, tritium, strontium, and uranium (page F-47) that is included in the Tentative Permit (page 21). We understand from conversations with Staff that the intention was to retain these effluent limitations in the permit, and that their omission was merely a typographical error. We would like to remind staff to please include these limitations in the final draft of the fact sheet to ensure they are not dropped from the Permit. We also recommend that staff include these constituents within the Summary of Final Effluent Limitations at Discharge Points 001 on Table 9 of the Fact Sheet, along with the explanation of the rationale behind their inclusion in Section IV: Rational for Effluent Limitations and Discharge Specifications. In addition, it would be helpful if Staff included zinc in the Effluent Monitoring Comparison Table (Table 10 on Page F-49). This constituent appears on Table 2 and is shown to be present above detection limits. We understand from conversations with Staff that the monitoring frequency for zinc was increased from semiannually to quarterly for this reason, but, as we mentioned, it would be helpful for		×	Effluent limitations of radioactivity have to be removed from the tentative Order and the revised tentative Order due to no reasonable potential to exceed water criteria objectives.  Zinc has been added to Table 9 of the revised tentative Fact Sheet.	Limitations of radioactivity have been removed.  Addition has been made.
		public review if this appeared on the Comparison Table.				
5.		In conclusion, we are supportive of certain aspects of the Tentative Permit, including the improvements in			Regional Board staff appreciate Heal the Bay's supports in certain aspects of the tentative Order.	

No.	Issue	Comment	Disagree	Response to Comment	Action Taken
	Letter from Heal the Bay dated April 9, 2010				
		CEC monitoring, an increase of monitoring for various constituents, and the inclusion of language allowing a reopener to incorporate a hard chronic toxicity limit. However, the Permit should be strengthened by maintaining the monitoring frequencies of other constituents of concern and by making a few corrections to the Fact Sheet, as outlined above. In addition, we believe that the Regional Board should reconsider the dilution credit of 61 as this is a large credit given the Harbor discharge.		Typos have been fixed. As for the comments on the dilution credits, please see "Response to Comment" No. 2 above.	

# STATE OF CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

## **ORDER WQ 2009-0012**

In the Matter of the Petitions of

# CITY OF STOCKTON, CALIFORNIA SPORTFISHING PROTECTION ALLIANCE, SAN LUIS & DELTA-MENDOTA WATER AUTHORITY AND WESTLANDS WATER DISTRICT

For Review of Waste Discharge Requirements Order No. R5-2008-0154
[NPDES No. CA0079138] for the City of Stockton Regional
Wastewater Control Facility, San Joaquin County
Issued by the
California Regional Water Quality Control Board,
Central Valley Region

SWRCB/OCC FILES A-1971, A-1971(a), and A-1971(b)

## BY THE BOARD:

In this order, the State Water Resources Control Board (State Water Board) remands a National Pollutant Discharge Elimination System (NPDES) permit (Permit) to the Central Valley Regional Water Quality Control Board (Central Valley Water Board) for revisions. The City of Stockton (City), California Sportfishing Protection Alliance (CALSPA), and San Luis & Delta-Mendota Water Authority and Westlands Water District (Water Agencies) have raised a number of objections to the Permit issued by the Central Valley Water Board for the wastewater treatment plant owned and operated by the City. The contentions addressed in this order deal with effluent limitations and control measures for electrical conductivity (EC), permit provisions related to tertiary treatment facilities, dissolved oxygen and ammonia limitations, monitoring for emerging contaminants, and creation of a mixing zone for human health criteria.<sup>1</sup>

Based on the record before the Central Valley Water Board and our technical review, we conclude that (1) the provisions of the Permit limiting the application of the EC water quality-based limitations and (2) the mixing zone for human health criteria should be remanded

<sup>&</sup>lt;sup>1</sup> To the extent petitioners raised issues that are not discussed in this order, such issues are hereby dismissed as not substantial or appropriate for review by the State Water Board. (See *People v. Barry* (1987) 194 Cal.App.3d 158, 175-177; *Johnson v. State Water Resources Control Board* (2004) 123 Cal.App.4th 1107; Cal. Code Regs., tit. 23, § 2052, subd. (a)(1).)

to the Central Valley Water Board, and that in all other respects discussed in this Order the Permit is appropriate and proper.<sup>2</sup>

#### I. BACKGROUND

The City owns and operates a Regional Wastewater Control Facility (Facility) that provides tertiary wastewater treatment. The Permit involves discharges into the San Joaquin River, within the Sacramento-San Joaquin River Delta (Delta). The discharge point is in the southern portion of the Delta, just upstream of the Stockton Deep Water Ship Channel (Channel). The discharge is subject to the Central Valley Water Board's Water Quality Control Plan, Fourth Edition, for the Sacramento and San Joaquin River Basins (Basin Plan). The discharge is also subject to the State Water Board's Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan; December 2006). Both the Delta area and the Channel where the discharge occurs have water quality impairments. The impairing pollutants are chloropyrifos, DDT, diazinon, dioxin, EC, exotic species, furan compounds, group A pesticides, mercury, pathogens, PCBs, and unknown toxicity. The Central Valley Water Board adopted a total maximum daily load (TMDL) for oxygen demanding substances in the Channel, which was approved by the State Water Board and by the United States Environmental Protection Agency (U.S. EPA). The TMDL established wasteload allocations for oxygen demanding substances, including ammonia, carbonaceous biochemical oxygen demand (CBOD), and dissolved oxygen (DO).

## A. The Treatment Plant

The City owns and operates the Facility, which serves the City and discharges intermittently up to 55 million gallons per day (MGD). The average daily flow rate is approximately 31.7 MGD, and the maximum annual average effluent discharge is 36.37 MGD. The Facility provides primary treatment, consisting of screening, grit removal, and primary sedimentation, and secondary treatment consisting of high rate trickling filters and secondary clarifiers. The secondary treated effluent is then piped under the San Joaquin River to a tertiary treatment facility, which consist of facultative ponds, engineered wetlands, nitrifying biotowers, dissolved air flotation, mixed-media filters, and chlorination and dechlorination facilities. Treated wastewater discharges to the San Joaquin River at Discharge Point 001.

<sup>&</sup>lt;sup>2</sup> The deadline for resolution of these petitions has passed. This order is issued on the State Water Board's own motion, pursuant to Water Code section 13320.

## B. The Receiving Waters

The San Joaquin River is a water of the United States, and the discharge occurs in the lower Delta, just upstream of the Channel. The beneficial uses of the receiving waters include municipal and domestic supply; agricultural supply; industrial process supply; industrial service supply; water contact recreation; non-contact water recreation; migration of aquatic organisms; cold and warm freshwater aquatic habitat; spawning, reproduction, and early development; wildlife habitat; and navigation. The receiving waters—the Delta where the discharge occurs and the Channel—are water quality limited segments, impaired by numerous constituents. The Central Valley Water Board has adopted TMDLs for some of these constituents.

# C. Applicable Plans, Policies, and Regulations

There are several water quality control plans and policies applicable to the discharge, including the Basin Plan; U.S. EPA National Toxics Rule (NTR) and California Toxics Rule (CTR)<sup>3</sup>; State Water Board's Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (SIP); Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan); and the Bay-Delta Plan.

# D. The Petitions

In October 2008, the Central Valley Water Board adopted waste discharge requirements for the Facility in Order No. R5-2008-0154 [NPDES No. CA0079138]. In November 2008, the State Water Board received three timely petitions challenging the Permit. The City challenged provisions regarding EC and salinity reduction. CALSPA challenged numerous provisions in the Permit, including provisions regarding EC and provisions related to tertiary treatment. The Water Agencies challenged provisions regarding EC and ammonia, and monitoring requirements. In this Order, we address various contentions concerning EC and salinity, the provisions relevant to tertiary treatment, and the need to address new or emerging contaminants.

<sup>&</sup>lt;sup>3</sup> 40 C.F.R. §§ 131.36 & 131.38.

#### II. CONTENTIONS AND FINDINGS

# A. Electrical Conductivity

Contentions: All of the petitioners assert various claims regarding EC. Some of these claims we addressed recently in Order WQ 2009-0003 (*Tracy*), concerning a petition filed by CALSPA challenging the NPDES permit for the Tracy sewage treatment plant. Because the City raises somewhat different contentions, we shall discuss those in more detail. CALSPA contends, as it did in its Tracy petition, that the Permit fails to establish an effluent limitation for EC that is protective of applicable water quality objectives and that the Permit instead contains a "conditional" final limit that imposes no numeric requirements as long as the City submits a salinity reduction plan for approval by the Central Valley Water Board and carries out the plan once it is approved. The Water Agencies generally make similar contentions as CALSPA, pointing out that the salinity plan requirements are vague and undermine the numeric effluent limitations. The City, on the other hand, challenges the numeric effluent limitation for EC, claims that the State Water Board's Bay-Delta Plan does not apply to the City, objects to the salinity plan, and challenges inclusion of a salinity reduction goal and monitoring to show progress toward that goal.

**Discussion:** In our recent *Tracy* order, we found that our Bay-Delta Plan did apply to the discharge from that city's treatment plant. We further concluded that the numeric effluent limitations, which incorporated the water quality objectives from that Plan but were contingent on submittal of and compliance with a salinity reduction plan, were inappropriate and improper. The substance of our finding was included in the following statement:

Thus, if the City timely submits a plan, and, if the City implements the plan (after the Central Valley Water Board approves it), the 700/1,000  $\mu$ mhos/cm will not be the final effluent limitation. If the plan is approved and implemented, there is neither a final numeric effluent limitation nor even a final effluent limitation for EC.<sup>4</sup>

We need not discuss this issue thoroughly, as our discussion and conclusions there are applicable here. We do note, though, that in the case of Stockton, the performance-based requirement is 1,300 µmhos. Thus, unlike Tracy, Stockton may be able to achieve compliance with the winter effluent limitations without significant modifications. The Central Valley Water Board should consider this factor in developing the appropriate EC requirements for the City.

<sup>&</sup>lt;sup>4</sup> Tracy at p. 7.

As discussed below, we conclude here that the Central Valley Water Board appropriately applied the EC objectives in the Bay-Delta Plan as numeric effluent limitations, but that, as we held in the *Tracy* order, these should not have been made contingent on submittal and compliance with a salt reduction plan. In answer to the City's contentions, we clarify that the requirements for the plan and the associated monitoring requirements are appropriate.

The Facility discharges directly into the San Joaquin River, just upstream of the Channel, within the Sacramento-San Joaquin Delta. The Central Valley Water Board's Basin Plan requires protection of the receiving waters for domestic and municipal supply and for agricultural use, among other beneficial uses. The Bay-Delta Plan established 30-day running average salinity objectives for the protection of agricultural uses at 700 µmhos/cm from September through March and at 1000 µmhos/cm from April through August in the southern Delta. The compliance locations include: (1) in the San Joaquin River at Brandt Bridge; (2) in Old River near Middle River; and (3) in Old River at Tracy Road Bridge.

We have already concluded, in the *Tracy* order, that it was inappropriate for the Central Valley Water Board to include conditional effluent limitations, based on submission and implementation of a salinity plan. While we did not specifically address the claim that Stockton makes, that the Permit should not contain effluent limitations for EC, it is clear from our precedential order that we believe that it is appropriate to establish effluent limitations to ensure compliance with the water quality objectives in the Bay-Delta Plan.

The City contends that the water quality objectives in the Bay-Delta Plan apply only at the compliance points specified in the plan. This is incorrect. The water quality objectives in the Bay-Delta Plan apply to waters throughout the legal boundaries of the Sacramento-San Joaquin Delta. As pointed out by the Central Valley Water Board, the plan on its face applies to the general area of the southern Delta; it is not limited to the specific points where compliance will be monitored. We do acknowledge that the border between the Southern Delta and Middle Delta is not clearly delineated in our plan. While the Stockton discharge occurs between the compliance locations described as interior Delta and southern Delta, it is physically much closer to the latter locations. The Central Valley Water Board considered river morphology, river flows (including major diversions and tributaries), and instream and diverted uses of the water at the southern Delta (Brandt Bridge) compliance location

<sup>&</sup>lt;sup>5</sup> "The water quality objectives in this plan apply to waters of the San Francisco Bay system and the legal Sacramento-San Joaquin Delta, as specified in the objectives. Unless otherwise indicated, water quality objectives cited for a general area, such as for the southern Delta, are applicable for all locations in that general area and compliance locations will be used to determine compliance with the cited objectives." (Bay-Delta Plan, at p. 10.)

and concluded that the river conditions that exist at the Facility discharge point are similar. We find that the Central Valley Water Board has properly applied the objectives for the southern Delta. Both the Bay-Delta Plan and the Central Valley Water Board's Basin Plan protect agricultural and domestic uses throughout the Delta. We find that the EC effluent limitations are appropriate for protection of those uses.

The City also contends that the Permit inappropriately required a salinity reduction plan, required implementation of an approved plan, and required monitoring of salinity reduction. In the *Tracy* order, we concluded that salinity reduction requirements alone were not sufficient—an effluent limitation or other legally sufficient controls were required. On the other hand, we took note of the difficulties of salinity reduction in the Delta and suggested various methods. The City, on the other hand, makes the radical claim that the City should be under no requirements whatsoever to reduce salinity—it challenges the need for a plan, the need to implement salinity reduction measures, and the need to monitor salinity reduction. The San Joaquin River and the Delta are impaired by salinity. The Facility discharges salinity into these waters. Of course it is appropriate, and indeed necessary, for the Permit to require the City to participate in the steps that will be required to reduce salinity and protect this valuable resource.

## B. Tertiary Treatment

**Contentions:** Several of the contentions by CALSPA and the Water Agencies concern the appropriate effluent limitations for the Facility in light of its tertiary treatment.

**Discussion**: CALSPA contends that the Permit should have contained effluent limitations for oil and grease. It also contends that, because of the technological capabilities of tertiary treatment, the Permit should have included a more stringent effluent limitation for CBOD. CALSPA challenges the decision to move the turbidity limitations from the effluent limitations section of the Permit to the Special Provisions section. As we will explain, in each of these cases, the Permit contains appropriate requirements for publicly owned treatment works (POTWs) that employ tertiary treatment.

As discussed previously, the Facility provides tertiary treatment to sanitary sewage. After the wastewater leaves the main facility, where it receives primary and secondary treatment and sludge is removed, the effluent is piped under the River to the tertiary treatment facilities. Those facilities consist of unlined facultative oxidation ponds, engineered wetlands, two nitrifying biotowers, dissolved air flotation, mixed-media filters, and chlorination/ dechlorination facilities. Some of the ponds are operated as necessary, to achieve improved

effluent quality by decreasing solids loading and by maintaining stable ammonia loading to the nitrifying biotowers.

The federal Clean Water Act<sup>6</sup> contains a technology based requirement that publicly owned treatment works must attain secondary treatment. In addition, permits must include more stringent limitations necessary to meet water quality standards, treatment standards, or schedules of compliance. Tertiary treatment is not specifically required for POTWs by federal law, but it may be a reasonable requirement where the treatment is necessary to achieve compliance with water quality standards. It is appropriate to include provisions that require tertiary treatment where necessary to protect water quality. The exercise of discretion in adopting appropriate permit requirements includes requiring tertiary treatment and including requirements to ensure that the Facility is operated properly.

In establishing the specific requirements for a tertiary treatment plant, the permit must, of course, include water quality-based effluent limitations as necessary to protect water quality. The regional water board also has discretion to include other requirements to ensure that the facility is operating properly. But there is no legal requirement to adopt technology-based effluent limitations for tertiary treatment.

Turning to the specific contentions of CALSPA, we first address the contention that every POTW must have effluent limitations for oil and grease. Oil and grease are not part of the federal technology-based requirements for POTWs. 11 An alternative basis for including an effluent limitation for oil and grease would be if there was reasonable potential for oil or grease to cause or contribute to an excursion above a water quality standard. 12 It is true that, in the prior permit, the Central Valley Water Board had included such effluent limitations. The record reveals that Stockton made upgrades to its tertiary train that resulted in improved effluent quality. Based on existing monitoring data, there is not a reasonable potential for the effluent from the Facility to cause or contribute to an excursion above applicable water quality standards for oil and grease. It was appropriate in this situation to remove effluent limitations for oil and

<sup>&</sup>lt;sup>6</sup> Federal Water Pollution Control Act, 33 U.S.C. § 1251 and following.

<sup>&</sup>lt;sup>7</sup> 33 U.S.C. § 1311(b)(1)(B). This requirement applies to publicly owned treatment works that discharge to surface water pursuant to an NPDES permit.

<sup>8 33</sup> U.S.C. § 1311(b)(1)(C).

<sup>&</sup>lt;sup>9</sup> State Water Board Order WQO 2004-0010 (Woodland).

<sup>10 10</sup> 

<sup>&</sup>lt;sup>11</sup> Cf. 33 U.S.C. § 1311(b)(1)(B) and 40 C.F.R. Part 133.

<sup>&</sup>lt;sup>12</sup> 33 U.S.C. § 1311(b)(1)(C); 40 C.F.R. § 122.44(d).

grease in the Permit upon finding that there was no reasonable potential for these constituents to cause or contribute to exceedance of water quality objectives.

We also reject CALSPA's contention that, because of the technological capabilities of tertiary treatment, the Permit was required to include a more stringent effluent limitation for CBOD. In fact, the CBOD effluent limitations in the Permit are far more stringent than the required technology-based requirements for POTWs. They reflect treatment plant performance following installation of upgraded nitrifying treatment, which is indeed beyond treatment that was attained by a lower level of secondary treatment. The turbidity limitations in this Permit are not water quality-based effluent limitations. Instead, the provisions are intended as a check to ensure that the tertiary treatment is operating properly. The Central Valley Water Board properly exercised its discretion in labeling these requirements as "Special Provisions" rather than effluent limitations.

# C. Dissolved Oxygen and Ammonia Effluent Limitations

Contention: The Water Agencies contend that the effluent limitations for dissolved oxygen and ammonia should have been strengthened over those of the prior permit in light of new scientific information about the declining health of the Delta and a salmon fish kill in 2007.

Discussion: As we stated in our *Tracy* order, ammonia is known to cause chronic toxicity to aquatic organisms in surface waters. The Central Valley Water Board has also concluded that dissolved oxygen threatens aquatic life. The Central Valley Water Board included effluent limitations for both ammonia and dissolved oxygen, and these limitations were unchanged from the prior permit. The Water Agencies contend that our Strategic Workplan for Activities in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Strategic Workplan), adopted July 16, 2008, points to potential impacts to delta smelt from ammonia, including from POTWs. The Water Agencies also argue that there was a significant fish kill of salmon in May 2007 near the City's discharge point, at a time when the facility was in compliance with its prior permit. They conclude that the prior permit was not sufficiently stringent.

The Central Valley Water Board included a thorough discussion in the Fact Sheet to the Permit justifying the calculation of the ammonia and dissolved oxygen effluent limitations. The Board also discussed current studies on ammonia in the Delta and effects of algal blooms associated with lowered dissolved oxygen. The Central Valley Water Board concluded that no definite conclusions could be drawn from the studies and stated its intention

to modify permits in the future as more definitive information is available. Our Strategic Workplan also pointed to the need for further studies to clarify the need for further controls on ammonia. Our review of the existing studies and documents in the record indicate that the Central Valley Water Board did consider new scientific information, and acted properly in retaining the existing effluent limitations and including a reopener provision. As to the fish kill cited by the Water Agencies, there was never a final determination as to the cause of the kill and there is no established link between the Facility's discharge, or the permit terms, and the event.

# D. Emerging Contaminants of Concern

**Contention**: The Water Agencies contend that recent scientific investigations have found detectable levels of pharmaceuticals in drinking water supplies across the country. They conclude that the City should be required to monitor and test for such substances in its discharge. They also point to language in the Strategic Workplan concerning the need for improved monitoring and (separately) the concern for emerging contaminants.

**Discussion**: The issue of pharmaceuticals and other emerging contaminants is of concern to this Board. In September 2008, we held a workshop to discuss and encourage reduction of pharmaceutical waste discharges to POTWs. At this point in time, however, the science is too uncertain to require each POTW to monitor for a host of materials that have the potential to be found in its discharge. The Central Valley Water Board acted appropriately by including a reopener provision to allow for coordinated monitoring of emerging constituents under a regional program.

## E. Mixing Zone

**Contention**: CALSPA contends that the Permit inappropriately grants a mixing zone for certain constituents.

**Discussion**: In an order on the City's prior permit, the State Water Board stated that it is the discharger that bears the burden to justify a mixing zone. <sup>13</sup> In the Fact Sheet, the Central Valley Water Board states that the City did not submit studies to justify dilution credits for acute and chronic aquatic life criteria. But for human health criteria, the Central Valley Water Board concluded that "critical environmental impacts are expected to occur far downstream from

<sup>&</sup>lt;sup>13</sup> In the prior permit, the Central Valley Water Board had denied Stockton's requests for a mixing zone and dilution credit. In an order reviewing that permit (WQO 2003-0002), the State Water Board upheld that action, noting that the burden was on the City to prove the existence of dilution.

the source such that complete mixing is a valid assumption."<sup>14</sup> The Central Valley Water Board makes a similar assumption regarding available dilution for agricultural water quality objectives. The Permit grants mixing zones for human health criteria for chlorodibromomethane, dichlorobromomethane, manganese, and nitrate plus nitrite. A mixing zone for protection of irrigated agriculture is granted for molybdenum.<sup>15</sup>

Concerning the mixing zone for human health criteria, the Permit increases the dilution credit from 10:1 in the prior permit to 13:1 in this Permit. As we have stated in other orders, dilution credit can be granted for a completely-mixed discharge, but if the discharge is not completely-mixed, the discharger must conduct a study to support the dilution credit. 16 The SIP states: "completely-mixed discharge condition means not more than a 5 percent difference, accounting for analytical variability, in the concentration of a pollutant exists across a transect of the water body at a point within two stream/river widths from the discharge point." In applying this definition, it is important that there be confirmation that the discharge is completely-mixed across the river transect at the downstream mixing zone boundary. Our prior order concerning this Facility's discharge discusses that the Central Valley Water Board found numerous flaws and areas of uncertainty regarding the reliability of dilution studies and adequacy of existing models at that time to support a mixing zone and dilution credits. 17 In this case, the record does not include any more recent field study or modeling to confirm that the discharge is completelymixed. Instead, upon granting a mixing zone that extends into the Channel, the Central Valley Water Board simply assumed that there would be complete mixing at some location "far downstream". It is quite possible that there is complete mixing, in light of the size of mixing zone granted, the turbulence within the river, and the river bends and channel configuration. But there is no diffuser from the Facility and it is certainly possible that the discharge would not completely mix, even after a lengthy river transport. The issue should be remanded to the Central Valley Water Board for confirmation. The boundaries of the mixing zone are also not clearly defined. 18 This should also be corrected in the remand.

<sup>&</sup>lt;sup>14</sup> Fact Sheet, at F-19.

<sup>&</sup>lt;sup>15</sup> The mixing zone information for molybdenum appears to be in error, because the Fact Sheet states that there is only one agricultural intake "in the vicinity." (Fact Sheet, at p. F-21.) In fact, there are numerous diversions for crop irrigation in the area. The "performance-based" effluent limitation is, however, much more stringent than an effluent limitation based on 13:1 dilution credit. There is initial mixing at the discharge and assimilative capacity for molybdenum. Therefore, granting the mixing zone for molybdenum appears to be harmless error.

<sup>&</sup>lt;sup>16</sup> See, e.g., *Tracy*, at pp. 10-13.

<sup>&</sup>lt;sup>17</sup> Order WQO 2003-002, pp. 3-4.

<sup>&</sup>lt;sup>18</sup> The mixing zone also does not correspond to data the City submitted in a study. (See "Human Carcinogenic Mixing Zone Evaluation Program for the Stockton Regional Wastewater Control Facility Waste Discharge (Continued)

#### **ORDER**

IT IS HEREBY ORDERED that this matter be remanded to the Central Valley Water Board to make revisions to the Permit that are consistent with this order.

- 1. The Central Valley Water Board must revise the effluent limitation for electrical conductivity so that they are not contingent on submission of and compliance with a salinity plan.
- 2. The Central Valley Water Board must clarify whether there is a basis for a mixing zone for human health criteria and, if so, to specify the boundaries of the mixing zone. If necessary, the effluent limitations for chlorodibromomethane, dichlorobromomethane, manganese, and nitrate plus nitrite should be revised.

## **CERTIFICATION**

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on October 6, 2009.

AYE:

Chairman Charles R. Hoppin

Vice Chair Frances Spivy-Weber Board Member Arthur G. Baggett, Jr.

Board Member Tam M. Doduc

NAY:

None

ABSENT:

ABSTAIN:

None None

Jeanine Townsend
Clerk to the Board

Requirement Order No. R5-2002-0083, May 17, 2005," at pp. 9-10.) This document states that the downstream tidal movement extends 1.5 miles to the Channel and then about 0.75 miles into the Channel. Accordingly, the downstream mixing zone boundary corresponding with this extent of tidal movement would be located 2.25 miles downstream, or mile 39 of the San Joaquin River.

# SUMMARY OF WATER QUALITY ORDER

ORDER NO.	WQO 2004-0010
DATE ADOPTED	June 17, 2004
PETITION TITLE	Own Motion Review of City of Woodland's (Waste Discharge Requirements Order No. R5-2003-0031 [NPDES No. CA0077950] and Cease and Desist Order No. R5-2003-0032 Woodland Water Pollution Control Facility)
POPULAR NAME [if applicable]	
REGIONAL BOARD	Central Valley Regional Water Quality Control Board
FILE NO	SWRCB/OCC File A-1561

# PRECEDENTIAL DECISION

On June 17, 2004, the State Water Resources Control Board (State Water Board or Board) adopted a precedential decision on the Board's own motion review of waste discharge requirements and a cease and desist order for the City of Woodland. The Central Valley Regional Water Quality Control Board (Regional Water Board) reissued the requirements in a National Pollutant Discharge Elimination System (NPDES) permit and adopted the enforcement order in March 2003.

The permit and order regulate Woodland's discharge of secondary effluent to Tule Canal in the Yolo Bypass. Order WQO 2004-0010 addresses five issues raised by Woodland related to: electrical conductivity (EC) limits; tertiary treatment requirements; dilution; one-hour average "salmonid present" ammonia limits; and iron limits. Order WQO 2004-0010 revises the permit and order.

Woodland's permit included a final EC limit of 700 micromhos per centimeter (µmhos/cm), effective March 30, 2008, to protect Tule Canal's agricultural beneficial use from adverse salinity impacts. The limit implemented a narrative objective for chemical constituents and was based on United Nations (UN) guidelines on agricultural water quality. Order WQO 2004-0010 concludes that the limit was inappropriate because the guidelines state that site-specific factors, such as leaching due to rainfall or flooding, must be considered in analyzing irrigation water suitability. The order finds that a reasonable potential evaluation for EC is premature pending development of an appropriate site-specific EC value. The order deletes the EC permit limit and directs Woodland to conduct a salinity source control study and a site-specific study on irrigation salinity requirements. When the studies are completed, the Regional Board must reevaluate reasonable potential for EC and reopen Woodland's permit to include appropriate EC limits.

Order WQO 2004-0010 upholds tertiary treatment requirements in Woodland's permit. The requirements are appropriate to protect Tule Canal's body contact recreation and agricultural

uses. The requirements properly implement Department of Health Services' (Department) recommendations for pathogen treatment to protect public health. In addition, the requirements do not violate Water Code section 13360 because they do not prescribe any particular pathogen treatment method or technology. The order concludes that tertiary treatment, based on the Department's recommendations, is necessary only when Woodland's effluent receives less than 20:1 dilution. The order revises Woodland's permit accordingly.

The order also upholds the Regional Board's decision to not grant Woodland harmonic mean dilution credit for its discharge. The order finds that dilution studies to date have been inadequate and that a longer and more thorough evaluation is needed. The order revises Woodland's permit to add a clause authorizing the Regional Board to reopen the permit if, and when, an adequate study is done.

Order WQO 2004-0010 upholds the Regional Board's determination that Woodland's ammonia discharge had the reasonable potential to cause or contribute to a water quality standards violation. The order, however, revises one-hour average "salmonids present" ammonia limits to apply the limits only when salmonids are expected to be present.

Finally, the order upholds the Regional Board's reasonable potential determination for iron. The order revises the Woodland permit to substitute iron limits, which were applied as instantaneous maxima, to limits based on a monthly average. The revision was appropriate since the limits are based on United States Environmental Protection Agency chronic criteria guidance for iron.



**Expires:** 

09/30/10



# **Analytical Service Quotation**

Contact: Veronica Cuevas

Printed: 2/22/2010

Client Name: CA Regional Water Quality Control Board-LA

Effective: 02/02/10

Address: 320 West Fourth Street, Suite 200

Los Angeles, CA 90013-2342

**Phone:** (213) 576-6600 **Fax:** (213) 576-6640

Project: PPCP-EDC

Code	Method	Qty	TAT (workdays)	Unit Price	Extended Price
Water					
Alkyl Phenols by GCMS SIM	GCMS SIM	0	15	\$350.00	\$0.00
Polybrominated Diphenyl Ethers (PBDEs) - EPA 1614M	GCMS SIM	0	15	\$350.00	\$0.00
PPCP - Hormones by LCMSMS-APCI+	EPA1694M-APCI	0	15	\$400.00	\$0.00
PPCP - Morphine by LCMSMS-ESI+	EPA1694M-ESI+	0	15	\$400.00	\$0.00
PPCP - Pharmaceuticals by LCMSMS-ESI-	EPA1694M-ESI-	0	15	\$400.00	\$0.00
PPCP - Pharmaceuticals by LCMSMS-ESI+	EPA1694M-ESI+	0	15	\$400.00	\$0.00
Additional Items					
<1> Pharma-Pos/-Neg/-Hormones on same sample		1		\$500.00	\$500.00
<2> Alkylphenols+PBDEs on same sample as <1>		1		\$500.00	\$500.00
<3> Morphine on same sample as <1>		1		\$200.00	\$200.00

Bid Total: \$1,200.00

## Comments:

Price Break can be given when Pharm-Pos, Pharma-Neg & Hormones are requested at the same time on the same sample. See Additional Items for details.

Leo Raab

**Business Development Manager** 

Payment terms are NET 30 days from invoice date. New accounts require payment prior to the release of test results until a credit application has been approved. Weck Laboratories accepts credit card payments (VISA/Master Card, American Express). Credit application/credit card approval form and Weck Laboratories' terms & conditions can be found at www.wecklabs.com under Resources

teo CRack



# **Analytical Method Information**

	-			Surr.	DUP	Matrix S	Snike	Blank S	Snike	Ī
Analyte	MDL	MRL	Units	% R	RPD	% R	RPD	% R	-	CASNumber
Alkyl Phenois by GCMS SIM by G	CMS SIM (Water	1								
4-tert-Octylphenol	0.080	0.20	ug/l	-		70-130	30	70-130	30	140-66-9
Bisphenol A	0.25	0.30	ug/l	_		70-130	30	70-130	30	80-05-7
Nonylphenol	0.30	0.90	ug/l	_		70-130	30	70-130	30	25154-52-3
Nonylphenol diethoxylate	2.1	6.0	ug/l	_		70-130	30	70-130	30	20427-84-3
Nonylphenol monoethoxylate	0.87	2.0	ug/l	_		70-130	30	70-130	30	27986-36-3
4-Nonylphenol	-	-	Surrogate	70-130		-	00	-	00	104-40-5
			•							101 100
Polybrominated Diphenyl Ethers	•		-	IM (Water)	)	70.400	00	70.400		400004.04.0
PBDE-100	0.012	0.050	ug/l	-		70-130	30	70-130	30	189084-64-8
PBDE-153	0.0090	0.050	ug/l	-		70-130	30	70-130	30	68631-49-2
PBDE-154	0.011	0.050	ug/l	-		70-130	30	70-130	30	207122-15-4
PBDE-47	0.0070	0.050	ug/l	-		70-130	30	70-130	30	5436-43-1
PBDE-99	0.0090	0.050	ug/l	-		70-130	30	70-130	30	60348-60-9
Perylene-d12	-	-	Surrogate	70-130		-		-		1520-96-3
Triphenyl phosphate	-	-	Surrogate	70-130		-		-		115-86-6
<b>PPCP - Hormones by LCMSMS-A</b>	PCI+ by EPA169	4M-AP	CI (Water)							
17a-Ethynylestradiol	0.56	1.0	ng/l	-		50-150	30	50-150	30	57-63-6
Estradiol	0.31	1.0	ng/l	-		50-150	30	50-150	30	50-28-2
Estrone	0.20	1.0	ng/l	-		50-150	30	50-150	30	53-16-7
Progesterone	0.17	1.0	ng/l	-		50-150	30	50-150	30	57-83-0
Testosterone	0.14	1.0	ng/l	-		50-150	30	50-150	30	58-22-0
DDCD Marchine but CMCMC FO	CL. by EDA4CO4M	ECL. (	Matau)							
PPCP - Morphine by LCMSMS-ES Hydrocodone-d3	SI+ DY EPA 1694W	-E9I+ (		50-150						NA
Morphine	0.53	2.0	ng/l	30-130		50-150	30	50-150	30	57-27-2
·			ng/l	-		30-130	30	30-130	30	31-21-2
PPCP - Pharmaceuticals by LCM	_	1694M	-ESI- (Wate	er)						
Bisphenol A	0.27	1.0	ng/l	-		50-150	30	50-150	30	80-05-7
Gemfibrozil	0.080	1.0	ng/l	-		50-150	30	50-150	30	25812-30-0
Ibuprofen	0.39	1.0	ng/l	-		50-150	30	50-150	30	15687-27-1
Iopromide	1.8	5.0	ng/l	-		50-150	30	50-150	30	73334-07-3
Naproxen	0.25	1.0	ng/l	-		50-150	30	50-150	30	22204-53-1
Salicylic Acid	0.86	50	ng/l	-		50-150	30	50-150	30	69-72-7
Triclosan	1.2	2.0	ng/l	-		50-150	30	50-150	30	3380-34-5
<b>PPCP - Pharmaceuticals by LCM</b>	SMS-FSI+ by FPA	1694N	I-FSI+ (Wa	ter)						
Acetaminophen	1.4	20	ng/l	-		50-150	30	50-150	30	103-90-2
Amoxicillin	2.0	10	ng/l	-		50-150	30	50-150	30	26787-78-0
Atenolol	0.20	1.0	ng/l	-		50-150	30	50-150	30	29122-68-7
Atorvastatin	0.11	1.0	ng/l	-		50-150	30	50-150	30	134523-00-5
Azithromycin	2.2	10	ng/l	-		50-150	30	50-150	30	83905-01-5
Caffeine	0.31	1.0	ng/l	_		50-150	30	50-150	30	58-08-2
Carbamazepine	0.080	1.0	ng/l	_		50-150	30	50-150	30	298-46-4
Ciprofloxacin	1.4	5.0	ng/l	_		50-150	30	50-150	30	85721-33-1
Cotinine	0.35	1.0	ng/l	_		50-150	30	50-150	30	486-56-6
DEET	0.060	1.0	ng/l	_		50-150	30	50-150	30	134-62-3
Diazepam	0.060	1.0	ng/l	=		50-150	30	50-150	30	439-14-5
Fluoxetine	0.080	1.0		-		50-150	30	50-150	30	59333-67-4
			ng/l	-						
Methodore	0.36	1.0	ng/l	-		50-150	30	50-150	30	57-53-4
Methadone	0.040	1.0	ng/l	-		50-150	30	50-150	30	76-99-3

Bid Project: CA Regional Water Quality Control Board-LA - PPCP-EDC

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				Surr.	DUP	Matrix S	Spike	Blank S	pike	
Analyte	MDL	MRL	Units	% R	RPD	% R	RPD	% R	RPD	CASNumber
Phenytoin	0.33	1.0	ng/l	-		50-150	30	50-150	30	57-41-0
Primidone	0.60	1.0	ng/l	-		50-150	30	50-150	30	125-33-7
Sulfamethoxazole	0.19	1.0	ng/l	-		50-150	30	50-150	30	723-46-6
TCEP	0.34	1.0	ng/l	-		50-150	30	50-150	30	115-96-8
TCPP	0.27	1.0	ng/l	-		50-150	30	50-150	30	13674-84-5
TDCPP	0.47	1.0	ng/l	-		50-150	30	50-150	30	13674-87-8
Trimethoprim	0.24	1.0	ng/l	-		50-150	30	50-150	30	738-70-5



# **Sampling Guide**

Analysis	sis SpecificMethod Container Preservation		Preservation	Hold (days)	Amount Needed
PPCPs - Alkyl Phenols by GC/MS	SIM in Water				
Alkyl Phenols by GCMS SIM	GCMS SIM	1 L Amber Glass- H2SO4	<6°C, H2SO4	28	1000 m
PPCPs - Hormones by LC/MSMS-	APCI in Water				
PPCP - Hormones by LCMSMS-APCI+	EPA1694M-APCI	1 L Amber Glass - Sodium azide, Ascorbic acid	<6°C, Sodium azide, Ascorbic acid	28	2000 m
PPCPs - Pharmaceuticals by LC/I	MSMS-ESI- in Wat	er			
PPCP - Pharmaceuticals by LCMSMS-ESI-	EPA1694M-ESI-	1 L Amber Glass - Sodium azide, Ascorbic acid	<6°C, Sodium azide, Ascorbic acid	28	2000 mL
PPCPs - Pharmaceuticals by LC/I	MSMS-ESI+ in Wa	ter			
PPCP - Pharmaceuticals by LCMSMS-ESI+	EPA1694M-ESI+	1 L Amber Glass - Sodium azide, Ascorbic acid	<6°C, Sodium azide, Ascorbic acid	28	2000 m
PPCP - Morphine by LCMSMS-ESI+	EPA1694M-ESI+	1 L Amber Glass - Sodium azide, Ascorbic acid	<6°C, Sodium azide, Ascorbic acid	28	2000 m
PPCPs - Polybrominated Dipheny	l Ethers by GC/M	S SIM in Water			
Polybrominated Diphenyl Ethers (PBDEs) - EPA 1614M	GCMS SIM	1 L Amber Glass	<6°C	14	1000 mL